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THE SCIENCE

OF

ENGLISH VERSE

BY

SIDNEY LANIER

So preye I God that non myswrite the,
Ne the mysmetere for defaute of tonge.
CHAUCER: *Troylus and Cryseyde.*

If . . . some perfect platform or Prosodia of versifying were . . . ratifyed and sette downe. — WEBBE: *Discourse of Eng. Poetrie.*

A Poet, no industrie can make, if his owne Genius bee not carried unto it. . . . Yet . . . must the highest flying wit have a *Dedalus* to guide him. — SIR PHILIP SIDNEY: *Apol. for Poetrie.*

. . . Gif Nature be nocht the cheif worker in this airt, Reulis wilbe bot a band to Nature . . . ; quhair as, gif Nature be cheif, and bent to it, reulis will be ane help and staff. . . . — KING JAMES I.: *Reulis and Cautilis, &c.*

Poesie therefore may be an Art in our vulgar, and that verie methodicall and commendable. — PUTTENHAM (?): *Arte of Eng. Poesie.*

But the best conceptions cannot be, save where science and genius are. — *Trans. from* DANTE: *De Vul. Eloq.*

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PREFACE.

If Puttenham in the sixteenth century could wish to make the art of poetry "vulgar for all Englishmen's use," such a desire in the nineteenth must needs become a religious aspiration. For under our new dispensation the preacher must soon be a poet, as were the preachers before him under the old. To reach an audience of a variety so prodigious as to range from the agnostic to the devotee, no forms of less subtlety than those of tone can be effective. A certain wholly unconscious step already made in this direction by society gives a confirmation of fact to this view which perhaps no argument can strengthen: I mean the now common use of music as a religious art. Music already occupies one end of the church: the same inward need will call poetry to the other. How the path of spiritual development which has arrived at the former phenomenon must presently reach the latter will appear more clearly in the course of the demonstration to follow, which gives an account of the true relations between music and verse. It may be, indeed, that there

are more persons nowadays who retain the "elegant" ideal of poetry which was prevalent a century ago than would willingly face an explicit statement of that ideal. But it must be said that the world, as world, has abandoned it. The tepid dilution in which Prior thought it necessary to feed to his time the marrowy English of the old Nut-Brown Maid ballad; the laborious apologies with which Bishop Percy introduced his *Reliques* to the eighteenth century, as if he had brought a corse betwixt the wind and its nobility; the painful undertone which we hear in dearest Keats's preface to *Endymion*, as if he were not free from a sense of intrusion in challenging the world's attention to forms of pure beauty which did not directly concern either trade or politics; the amateurish trifling which crops out in such expressions as "polite literature" used even by Poe in a quotation presently given, and which is still to be traced here and there in current talk: are things of the past. That all worthy poets belong substantially to the school of David, that it is the poet's business to keep the line of men touching shoulders with each other, that the poet is in charge of all learning to convert it into wisdom, and that therefore a treatise on the poet's method is in its last result a sort of disciplinary preparation and *magister choralis* for the congregation as well as for the preacher of the future, — these will not be regarded merely visionary propositions, and perhaps will be here

accepted at least as giving a final unity to the principles now to be set forth.

The following historical details will be found to add force to these general views.

It is now about twelve hundred years since Aldhelm's *Epistola Ad Acircium*, the first essay on verse by an Englishman, was written; and Beda's treatise *De Arte Metrica* followed Aldhelm's dialogue closely enough to be fairly called contemporary with it: so that we find the thoughts of the fathers[1] stirring upon the subject of poetic science quite at the historic beginning of our literature. But notwithstanding this early start of English research into the nature of verse, and the host of subsequent speculations ranging from the modest *Certayne Notes of Instruction concerning the Making of Verse . . . in English*, which George Gascoigne printed along with his *Posies* in 1575, — through the learned absurdities of the "Areopagus" in which Sir Philip Sidney and Fulk Greville and Gabriel Harvey and Spenser proposed a scheme for reducing

[1] It seems highly probable that Aldhelm — surely the most fascinating figure in our literature before Chaucer — must have written vernacular verse earlier than Cædmon, and that he is therefore entitled to be called the Father of English Poetry. See William of Malmesbury's Life of him, here and there, and scraps in Asser's Life of Alfred. Of course, in this location of Aldhelm, as hinted in the term "historic beginning" of our literature, one bears in mind the possible sixth-century date of Widsith's *Traveller's Song*, of *Deor's Lament*, and of other poems.

the English language into subjection to the classic laws of quantity, — through the treatises of the seventeenth and eighteenth centuries hereinafter mentioned, — down to Mitford's decorous *Inquiry into the Harmony of Language* in the beginning of the present century, the fancied discovery of Coleridge in his Preface to *Christabel*, the defiant metrical outburst of Poe in his *Rationale of Verse*, and the keen though professedly disconnected glimpses of Professor Sylvester in his *Laws of Verse;* notwithstanding this variety of investigation it still cannot be said that we possess a theory, or even a working-hypothesis, of the technic of English verse.

Conclusive testimony as to the general feeling upon this point is to be found in the circumstance that among the later treatises each begins by remarking the wholly unsatisfactory nature of all previous ones; while, among the essays of Elizabeth's time, the same discontent usually takes the form of a somewhat timid argument that a science of English poetry is possible — an argument not only addressed to a large class of Englishmen who evidently believed otherwise, but generally advanced with a certain tone of low spirits and deprecation which is unusual even for the queasy modesty of sixteenth-century dedications. As, for example, Webbe, writing in 1586, with a wistfulness which seems genuine enough desires to have this matter "thoroughly taken in hande, and laboured by some

other of greater abilitie . . . who, bothe for learning and leysure, may handle this Argument far more pythilie then myselfe."

If these facts be put together in their proper relations, they reveal an anomaly which I cannot but believe to be without parallel in the history of human thought. Remembering that the science of any art can be nothing but the body of large facts which presents itself upon assembling all the observed small facts of that art and classing together such as are substantially alike, let any one consider that in the last quarter of the sixteenth century the gravest critics were debating the possibility, not only of a science, but of an art, of English verse, after that art had been illustrated during a thousand years by Aldhelm, Cædmon, Cynewulf, the authors of *The Death of Byrhtnoth* and *The Wanderer*, Ormin, Lydgate, the author of *The Vision Concerning Piers Plowman*, Chaucer, the Scotch poets of the fifteenth century, Wyatt, Surrey, Sackville, and a host of less known or unknown singers. The state of men's minds upon this question at that remarkable period of our spiritual history just mentioned — the last quarter of the sixteenth century — forces upon us a corollary of such importance to my present purpose that, before proceeding to show how matters stand at the present day, I think it necessary to illustrate the attitude of Elizabethan thought towards verse with one or two brief citations from contemporary works.

It was natural that Aldhelm, writing in the seventh century an essay upon prosody, — such prosody as was then thought of, — should find pleasure in the reflection that he was the first to teach his countrymen upon this matter; and it seems charming to find him, a venerable English poet in the year of our Lord 700, aptly quoting Virgil to adorn this sentiment, "Siquidem illustris ille qui dicebat: —

> 'Primus ego in patriam mecum (modo vita supersit)
> Aonio rediens deducam vertice Musas,
> Primus Idumæas referam tibi, Mantua, palmas.'"

But, coming down nine centuries to the time when Englishmen again begin to treat of verse, we are surprised to find each writer still claiming in more or less indirect methods to be the first prosodian among us. At the very beginning of that last quarter of the sixteenth century which we are now considering, — in 1575, — George Gascoigne enters upon his *Certayne Notes of Instruction concerning the making of verse or ryme in English, written at the request of Master Edouardo Donati*, by reminding Signor Edouardo that "*Quot homines, tot Sententiæ*, especially in Poetrie." Of course we gather from Gascoigne's pithy Latin that if there were as many opinions as men in poetry the science of it had still to be begun.

Compare this utterance of Gascoigne's with one by Webbe, eleven years later, from which several instructive inferences are to be drawn. In his "Preface to

the Noble Poets of Englande," which introduces the *Discourse of English Poetrie*, he speaks here and there to this effect: "Among the innumerable sortes of Englyshe Bookes, and infinite fardels of printed pamphlets, wherewith thys Countrey is pestered, all shoppes stuffed, and every study furnished: the greatest part I thinke in any one kinde, are such as are either meere Poeticall, or which tende in some respecte (as either in matter or forme) to Poetry." Nevertheless, these infinite fardels of learning have not helped forward any science of poetry; for "it is to be wondred at of all, and is lamented of manie, that whereas all kinde of good learning have aspyred to royall dignitie and statelie grace in our English tongue . . . : onely Poetrie hath founde fewest frends to amend it;" and therefore he proceeds to write his *Discourse* "even as it were by way of supplication to the famous and learned Lawreat Masters of Englande, that they would but consult one halfe houre with their heavenly Muse, . . . what enormities they might wipe out of English Poetry . . . : if English Poetrie were truely reformed, and some perfect platforme or *Prosodia* of versifying were by them ratifyed and sette downe: eyther in immitation of Greekes and Latines, or when it would skant abyde the touch of theyr Rules, the like observations selected and established by the naturall affectation of the speeche:" finally, praying the Laureate Masters of their courtesies to note particularly "the

lyttle somewhat which I have sifted out of my weake brayne concerning thys reformed versifying."

But three years later[1] comes George Puttenham, — if it was really he who wrote the *Arte of English Poesie*, — with declarations and hints which state the matter in yet stronger terms. Chapter II. of his book is headed: "*That there may be an Art of our English Poesie, aswell as there is of the Latine and Greeke*," and proceeds to expand this proposition with various such utterances as the following: "If againe Art be but a certaine order of rules prescribed by reason, and gathered by experience, why should not Poesie be a vulgar Art with us aswel as with the Greeks and Latines . . . ? . . . Poesie therefore may be an Art in our vulgar, and that verie methodicall and commendable." A passage of Puttenham's, in quite another connection, brings us upon this same view by a different and entertaining path. Having spoken of the possibility of constructing classic dactyls and the like feet with English words, he concludes, in a shamefaced way that seems incredible when we reflect how even the very nursery-songs of our tongue abound in the rhythms which Puttenham calls dactyls, "I intend not to proceed any further in this curiositie then to show some small subtillitie that any other hath not yet done[2] . . .

[1] Later in publication, though possibly written a year before Webbe's book appeared.

[2] This expression, by the way, shows that Puttenham could not have

nor to th' intent to have it put in execution in our vulgar Poesie, but to be pleasantly scanned upon, as are all novelties so frivolous and ridiculous as it"!

And finally, to end these citations, — which must have now fulfilled their end, of showing that in the latter part of the sixteenth century the science of English poetry can scarcely be said to have been suspected, — the climax of these curiosities was naively capped by King James, who, in his *Reulis . . . and Cautelis* (that is, Rules and Cautions) of things to be observed and eschewed in making English verse, explains the scope of his desire thus: ". . . I made noght[1] my treatise of that intention *that eyther I or any others behoved astricktly to follow it;* but that onely it should show the perfection of Poesie, whereunto few or none can attain."

With these illustrations leaving the sixteenth century, it is now important to show by similar citations the very different, though at bottom not more hopeful, state which the technical theory of our verse has reached in its course from the last quarter of the sixteenth to the last quarter of the nineteenth century.

seen the Discourse of Webbe, who had not only shown this "subtillitie" in 1586, but had published some very quaint and occasionally charming English hexameters of his own in the same book; as, for example: —

> "Happie olde man. In shaddowy bankes and cool prettie places,
> Heere by the quainted floodes and springs most holie remaining."

[1] Not.

It might have been expected that seventeenth-century works like Ben Jonson's English Grammar, or Butler's, or particularly Wallis's, — which last contained a preliminary essay upon sound, the real clew to the whole labyrinth of verse, — would have made some contribution advancing poetic science beyond where it was left by the sixteenth-century writers. But they do not; nor do the rhyming vocabularies of the same period, such as Willis's *Vestibulum Linguæ Latinæ*, or Poole's *English Parnassus*. The eighteenth and early nineteenth centuries help us not: Goldsmith's *Essay*, Sheridan's *Art of Reading*, Steele's *Prosodia Rationalis*, Chapman's *Music of Language*, Harris's *Discourse*, Guest's *History of English Rhythms* — the last an admirable history as far as it goes, but a wholly mistaken theory, of our rhythm — do little more than repeat, or increase, existing errors and confusions. In 1804 Mitford's *Inquiry, &c., into the Harmony of Language* presents us with several isolated observations which are keen and valuable, though they occur in the course of a demonstration so fundamentally erroneous as to render the whole work rather a hindrance than a help to formal poetry. Upon the point now in hand, however, — the melancholy state of poetic science at that time, — Mitford is accurate and unequivocal enough. "When . . . I found" (says he in his introductory remarks) "that to follow the Greek and Latin rules for the mechanism of Greek and Latin

verse in writing was easy, but to comprehend the ground, to see the reason . . . so that the voice might follow as well as the pen, and the ear might acknowledge its performance, not only was beyond me, but, as far as I could discover, beyond all teachers; when farther I observed that for the very different harmony of English verse, no rule could be obtained . . . these contradictions engaged my thought."

Mitford's researches had evidently been extensive; and his assertion that "no rule" could be found for English verse up to his time was therefore weighty enough. But a few years afterwards we come upon an utterance which gives us a still more vivid picture of affairs: I mean Coleridge's grave announcement, in the Preface to *Christabel* of 1816, that he had discovered a new principle of English versification, to wit, that of accents. This "principle" had been employed, as far as it can be, in English poetry for more than a thousand years; and the very nursery-rhymes and folk-songs of our tongue present us everywhere with applications of it[1] far more daring and complex than any line of *Christabel.*

Perhaps the state of poetic science revealed by Coleridge's claim may infuse with a certain sympathy the smile which must be provoked when we reach, a few years after Coleridge, the highly indignant account of matters given by Edgar A. Poe in the outset of his

[1] See the discussion of Rhythm in Part I. following.

Rationale of Verse. "There is, perhaps," he cries, "no topic in polite literature which has been more pertinaciously discussed; and there is certainly not one about which so much inaccuracy, confusion, misconception, misrepresentation, mystification, and downright ignorance on all sides, can be fairly said to exist." Under these circumstances, none of us will be prepared to refuse pardon when we find Poe's essay permeated by a fundamental mistake [1] quite fatal to the usefulness of even the shrewd detached glimpses occurring here and there.

If now, advancing from Poe's Essay to that of the Rev. W. W. Skeat On Alliterative Metre (printed in Messrs. Hale's and Furnivall's reproduction of Percy's Folio Manuscript, 1868), we remark the hopeless tone of the latter in regard to the present condition of English prosody, together with the errors [2] into which its author has been led by the failure to test an alleged rhythmic principle which has been allowed to pass unexamined in English thought for many years, this brief

[1] Namely, that the accent makes every syllable *long*, — a conception wholly unaccountable to the musician, and so absurd as to render a large proportion of existent music and verse theoretically impossible. See the following discussion of Rhythm, Part I.

[2] Discussed in Part I. of this book. Meantime it is impossible to pass an occasion for noting several most useful suggestions in the essay mentioned; and I am tempted to enlarge this into an opportunity for acknowledging with gratitude the hours of delight for which I am indebted to the labors of this scholar.

array of citations may fitly be closed with one from the *Laws of Verse* by Professor J. J. Sylvester, a work mainly devoted to the exposition of a branch of poetic science which, so far as I know, has not hitherto been treated by any author — the "Phonetic Syzygy." Says Professor Sylvester, —

"It does not seem to be at all understood among us in England . . . that versification has a technical side quite as well capable of being reduced to rules as that of painting or any other fine art. In Miss Mitford's recently published correspondence there is a letter in which she wonders at a 'travelling poetess' asking her for a book of rules on poetry. The wonder should rather have been at no such book (as far as I am aware) existing, or, at all events, being generally known to do so, in the English language."

This sketch of our prosodial history and literature — meagre as it necessarily is, in a work planned to be at once a popular treatise for the general reader and a manual for the academic student — would seem, at least, full enough to justify any contribution towards a complete theory of the technic of English verse.

SIDNEY LANIER.

BALTIMORE, MD., February, 1880.

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THE COLORS OF ENGLISH VERSE.

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SCIENCE OF ENGLISH VERSE.

CHAPTER I.

INVESTIGATION OF SOUND AS ARTISTIC MATERIAL.

PERHAPS no one will find difficulty in accepting the assertion that when formal poetry, or verse, — two terms which will be always used here as convertible, — is repeated aloud, it impresses itself upon the ear as verse only by means of certain relations existing among its component words considered purely as sounds, without reference to their associated ideas. If the least doubt upon this point should be entertained, it may be dispelled by observing that all ideas may be abolished out of a poem without disturbing its effect upon the ear as verse. This may be practically demonstrated by the simple experiment of substituting for the words of a formal poem any other words which preserve the accentuation, alliteration, and rhyme, but which convey no ideas to the mind, — words of some foreign language not understood by the experimenter being the most effective for this purpose. Upon repeating aloud the poem thus treated it will be found that the verse-structure has not been impaired. If, therefore, the ear accepts as perfect verse a series of words from which ideas are wholly absent, — that is to say, a series of

sounds, — it is clear that what we call "verse" is a set of specially related sounds, at least in the case of a formal poem repeated aloud.

But a much more sweeping proposition is true. If we advance from the case of formal poetry repeated aloud to that of formal poetry silently perused by the eye of a reader, a slight examination will show the proposition good that here, as before, verse is still a set of specially related sounds. For, in this instance, the characters of print or writing in which the words are embodied are simply signs of sounds; and although originally received by the eye, they are handed over to the ear, are interpreted by the auditory sense, and take their final lodgement, not at all as conceptions of sight, but as conceptions of hearing. The function of the eye is now purely ministerial: it merely purveys for the ear. An analogous process is indicated in the Arabian saw which affirms that "that is the best description which makes the ear an eye." In general, the reader will do well to recall that each sense has not only what is ordinarily called its physical province, but also its corresponding imaginative province; the eye has its imagination, the ear its imagination; and when the term "imagination of the ear" is hereinafter used it must be understood to suggest those perceptions of sound which come to exist in the mind, not by virtue of actual vibratory impact upon the tympanum immediately preceding the perception, but by virtue of indirect causes (such as the characters of print and of writing) which in any way amount to practical equivalents of such impact. Now these signs convey, along with their corresponding sounds, the same relations between those sounds which are suggested to the ear when the sounds

themselves fall upon the tympanum. It is therefore strictly true that, although the great majority of formal poems in modern times are perceived by the mind through the original agency of the eye, the relations indicated by the term "verse" are still relations between sounds.

Nor — to call the briefest attention to the only other case in which this fundamental proposition could seem at all doubtful — is this connection of verse with sound less essential when the formal poem is merely conceived in the thought of its author without ever reaching either visible or audible embodiment. For the formal poem is necessarily conceived in words, and in the imagination of the sounds (words) is necessarily involved the imagination of the relations between the sounds, that is, of verse.

In short, when we hear verse, we *hear* a set of relations between sounds; when we silently read verse, we *see* that which brings to us a set of relations between sounds; when we imagine verse, we *imagine* a set of relations between sounds.

Approached in this way, the proposition given below will probably not seem difficult of acceptance; indeed it is possible many will be surprised that the ideas leading to it have been dwelt upon so long. In point of fact, however, it is the very failure to recognize verse as in all respects a phenomenon of sound and to appreciate the necessary consequences thereof which has caused the non-existence of a science of formal poetry. Occasion will presently arise to show how this has happened, with some detail; meantime, we are now prepared to formulate a proposition which will serve as the basis of a science of verse.

The term "verse" denotes a set of specially related sounds.

It is clear that if we can now ascertain all the possible relations between sounds we will have discovered all the possible determinants of verse, and will have secured physical principles for the classification of all verse-effects from which there can be no appeal. This investigation can fortunately be carried on with the confidence attaching to the methods of physical science. For it involves mainly the observation of sensible appearances; and these are, furthermore, in the present instance not complex.

The study of verse must therefore begin with the study of sounds.

Sounds may be studied with reference to four and only four, particulars. We may observe —

(1) How long a sound lasts (*duration*);

(2) How loud a sound is (*intensity*);

(3) How shrill — that is, how high, as to bass or treble — a sound is (*pitch*);

and

(4) Of what sounds a given sound is composed — for, as in studying colors we find purple composed of red and violet, and the like, so many sounds have been discovered to be made up of other sounds (*tone-color*).

These differences in sounds, although really so distinct from each other as to be the origin of some of the most striking and widely-separated phenomena both in art and in our daily life, are so confused by most persons who have had no special occasion to examine them that there are no terms of ordinary use in which they can be expressed with scientific precision. The reader, however, will not only advance with ease, but

will win a whole new world of possible delight,[1] by acquiring at the outset such a familiarity with the sound-relations above termed duration, intensity, pitch, and tone-color, that the ear will immediately and intelligently refer every sound heard to all those particulars and measure its relations to the preceding or succeeding sound in terms of them. The remarkable powers which the human ear possesses of making perfectly accurate comparisons of sound with sound in three of these particulars will presently be detailed.

Meantime the reader will receive great assistance towards a clear conception of these differences by observing exactly how they are caused by the vibrating body producing the given sound; that is, by attending to the physical explanation of duration, intensity, pitch, and tone-color.

For this purpose: remembering that all sounds are caused by the vibrations of some vibrating body, which are impressed upon the air, and through the air upon the drum-membrane, or tympanum, stretched inside the ear, whence, after being conveyed along a complex arrangement of bones and fluids, they are sent to the brain and are perceived as sound: remembering, further, that what we call "sound," the physicist only recognizes as "vibrations:" let us consider the behavior of a vibrating string, as the type of all sound-producing bodies.

If a stretched string be plucked out of its position and thus set to vibrating, we can, in observing its

[1] See particularly the discussion of the Tunes of Verse in Part II. recommending the habit of consciously co-ordinating those remarkable tunes of the speaking-voice which constitute, perhaps, a greater element in modern speech than words, and which are giving rise to the modern art of spoken recitation.

vibrations, direct our attention to the following four matters, which include all the possible classes of such phenomena.

(1)[1] We can observe how long the string vibrates, or the duration of its activity.

(2) We can observe how far to one side and the other its swing, or "excursion," is extended. Upon this distance depends the loudness, or intensity, of the resulting sound. The reader must associate clearly the ideas of distance of swing (called in the science of sound "excursion") and intensity of sound. The greater the excursion, the greater the intensity (or loudness) of the sound. It is easy to see that if the string be pulled very far out of its position and let go, it will vibrate with more force than when pulled only a little way out. The measure of the far-ness is therefore the measure of the force; and, of course, the impression on the ear, when the vibrations reach it, will be more intense according as they are more forcible. In short, stated technically, the intensity of the sound depends upon the vibratory excursion.

(3) But, instead of observing how long the string continues to vibrate (*duration*), or how far to one side and the other it vibrates (*intensity*), we may observe, thirdly, how fast it vibrates. The pitch of the sound depends upon this circumstance. Slow vibrations give sounds of low pitch, or bass sounds: the faster the vibrations become, the higher, or more treble, are the

[1] These numbers in parentheses are repetitions of those accompanying the terms "duration," "intensity," &c., and are merely intended as an additional association, helpful to the reader, between the physical phenomena of vibration and the mental phenomena of sound, — the term "sound" implying the perception by the ear, while the term "vibrations" has reference only to the phenomena occurring up to that point.

corresponding sounds. Of course, this observation of the rapidity of vibrations could not be carried on by the unassisted eye. Every reader, whether specially interested in acoustics or not, would do well to be at some pains in becoming familiar with the beautiful series of apparatus [1] which has been devised by modern physicists for counting the vibrations of sounding bodies and for confirming and extending many of the wonderful facts revealed to us by the knowledge of these rates of vibration, particularly the fact of tone-color, to be explained in the next paragraph. It would not be proper to detail these inquiries here, further than to call the reader's attention to the fact that the art of sound, with which we are at present concerned, has for its materials a body of tones which range in pitch from the tone which is produced by a body vibrating about twenty-four times in a second to that which is produced by a body vibrating about four thousand seven hundred times in a second. If one sits in front of a low-tuned piano, and presses down the key farthest to the left, the string struck by that key will vibrate about twenty-four times to the second, and will give forth a tone so low in pitch that many ears are almost unable to distinguish its tone from that of the next key to it. If the key at the extreme right be pressed down, the string which it strikes will vibrate about three thousand five hundred times to the second. Higher tones than the latter — reaching to about four

[1] The main book to be read for this purpose is, of course, Professor Helmholtz's monumental work, *Die Lehre von den Tonempfindungen*, which has recently been translated into English, with very important additions, by Mr. Alexander J. Ellis. Smaller, and perhaps more accessible, books, are Tyndall's Lectures *On Sound*, Mayer's work on the same subject (Appleton), and Blaserna's *Theory of Sound* (Appleton).

thousand seven hundred vibrations per second — can be obtained on the piccolo.

But the sounds with which we shall presently be more specially concerned — namely, the sounds of the human speaking-voice, in which the art of verse finds its primary material — range within narrower limits. To produce the lowest tone of a man's bass voice, the vibrations must be about sixty-five in a second; while, for the highest tones of a woman's voice, the upper limit — leaving out exceptional cases — may be taken as lying at about a thousand and forty-four vibrations in a second. These are the limits for the human singing-voice; but, as will be seen in the discussion of the tunes of verse following, they are also substantially the limits of the speaking-voice. To sum up these details before proceeding to the next paragraph: the reader is asked to form the clearest conception of the difference between the *intensity* of sounds — that is, their loudness or softness — and the *pitch* of sounds — that is, their bass-ness or treble-ness. We shall presently find that great confusion has arisen in the discussion of what is called "accent" from inexact ideas upon this point. For this reason, the physical explanations of intensity and pitch have been dwelt upon in the preceding and present paragraphs. The reader can always accurately distinguish them by associating the *intensity* of a sound with the *distance* of the vibratory excursion, and the *pitch* of a sound with the *rapidity* of the vibration.

(4) We have now arrived at the last of the particulars in regard to which we may observe the vibrations of a string. This is the particular called by some physicists "quality," by others "timbre," by Mr. Tyndall

(whose explanation of it is perhaps the clearest to the general reader: see his Lectures on Sound, cited in the last paragraph) "clang-tint," in translation of the German term *Klang-farbe;* and by still others "tone-color." The analogy to the corresponding phenomenon in light seems to make the term tone-color a desirable one, and it will be adopted in this book. It has been discovered that such tones as constitute material for the art of sound [1] are not simple, but are made up of subordinate tones, much as the color purple consists of two other colors — red and violet — in combination, and as many other hues are formed by combining different tints. The complete physical explanation of this phenomenon would require much more space than can be given here; but a partial insight into its nature may be gained from the behavior of our stretched string when plucked. If the string be observed closely, it will be found to be carrying on several sets of vibration at the same time: it is not only vibrating as a whole between its two extreme fixed points, but, in consequence of the reflections to and fro of the force applied in plucking the string — which runs along the string to the fixed end, and is then reflected along the string, thence back again, and so on — certain other practically-fixed points are set up, and the string actually vibrates in smaller segments between these points — called "nodes of vibration" — as if it consisted of

[1] This term, "the art of sound," is used as designating a genus, of which music and verse are the two species. Purposes of the utmost value to the present system are subserved by discussing, as the reader observes is being done, this genus until a point is reached where the differentiation of the two species sharply presents itself. They will be found separated by a line much less broad than has been commonly supposed.

several shorter strings: now each of these segments vibrates at a different rate per second from the rate of the whole string, and therefore makes a tone different in pitch (see the last paragraph) from that of the whole string which is called the "fundamental tone:" so that the tone made by each segment combines with the fundamental tone and all are heard by the ear as one tone. But, while heard as one tone along with the fundamental tone, the segment-tones influence the resulting tone in a manner very striking to the ear according as they are more numerous in some vibrating bodies than in others, or according as one segment-tone becomes (as is found to be the case) more prominent in some bodies than in others. It is found, for instance, that when the vibrating body is the column of air in a flute, instead of a string, the column of air presents a different set of segment-tones (or "harmonics," or "partial tones," as they are variously called) from the set presented by the string; and it is precisely this difference which enables our ear to recognize the flute-tone as distinct from the string-tone. So of all instruments: the reed-instruments, such as the clarinet, hautboy, and bassoon, cause the air within them to vibrate in different sets of segments from the air in a flute, or a horn, and from the string of a violin: each segment giving its own tone, the different sets of segments give different resulting tones, that is, different tone-colors: and it is by these different tone-colors that we discriminate flute from violin, horn from clarinet, and the like, when they are played out of our sight. This principle makes such delicate shades of variations that even instruments of the same class differ from each other very strikingly in this particular, so that of two violins we often prefer the

"tone" (by which we mean the "tone-color") of one to the other, and so of two flutes, two pianos, and the like. The delicate distinctions due to tone-color reach a most interesting phase, which is specially used throughout the present treatise, in language. It has been found that the ability of the ear to discriminate one vowel-sound from another, and one consonant-sound from another, is due to the fact that the vowels and consonants differ from each other in tone-color just as violin-tones differ from flute-tones, or from reed-tones, in tone-color. The human voice is practically a reed-instrument of the hautboy class, the vocal chords being the two thin vibrating reeds, and the mouth and throat (the buccal cavity) constituting the tube. Now it is found that the tone-color of wind-instruments will vary according to the shape of their tubes : a column of air vibrating in a tube like that of the clarinet, for instance, gives a different set of prominent segment-tones, that is, a different tone-color, from a column in a tube like that of the flute. It is thus that the voice produces those sounds of differing tone-color which we call vowels and consonants; for the voice is a reed-instrument which can alter the shape of its tube (the buccal cavity) at pleasure, and which in so doing alters its tone-color at pleasure. The general fact that we alter the shape of the mouth and throat in pronouncing each vowel and consonant must lie within the observation of every person. The precise proof, however, that tone-color is the principle by which we discriminate the constituent sounds of speech, and the scientific analysis of the phenomenon, constitute one of the most brilliant achievements of modern science, which should not be mentioned without specifying the

names of Charles Wheatstone, who first suggested the idea, and of Helmholtz, who demonstrated it in a series of the most beautiful studies and experiments ever made.

The fact that each vowel-tone in speech is compound, being the resultant of a number of subsidiary tones in combination; the fact that now one, now another, of these subsidiary tones comes into prominence according as we alter the shape of the mouth-cavity, and thus varies the tone-color of the voice; and the fact that our ear recognizes a certain tone-color as the vowel *a*, another as the vowel *e*, another as the vowel *i*, another as the vowel *o*, another as the vowel *u*: were established and verified in a complete manner by Helmholtz, who applied the principle in constructing an apparatus of tubes and membranes which imitated several of the vowels with much exactness.

To sum up the results of this division, therefore: whenever, in discussing the general art of sound, the term tone-color is used, it should bring into the reader's mind the principle of segmentary or partial vibrations which combine with the fundamental vibrations (of a string or of a column of air in an instrumental tube) to form a composite tone, — as different light-vibrations combine to form a composite color, like purple, — resulting in that peculiar set of differences by which we discriminate flute-tone from violin-tone, horn-tone from clarinet-tone, *a* from *o*, *i* from *u*.

The following, then, comprise all the possible relations between sounds, namely: (1) the relative duration of sounds, in which the reader must carefully remember to include the correlative duration of the *silences* between sounds, which are called "rests," and which are quite as

necessary to many forms of verse as are the sounds thereof; (2) the relative intensity of sounds; (3) the relative pitch of sounds; and (4) the relative tone-color of sounds.

It will now be useful to combine the two last propositions in a statement made from a different point of view. *A formal poem is always composed of such sounds and silences*[1] (*or of the signs, or of the conceptions, of such sounds and silences*) *as can be co-ordinated by the ear.*

By "sounds which can be co-ordinated by the ear" are meant sounds which the ear can perceive with such clearness that it is able to compare them with reference to some one or more particulars. For example, if, in strolling, we hear first the quick chirp of a sparrow and then the slow shrilling of the field-cricket in the grass, our ear can compare the two sounds as to *time*, and can decide that the latter is longer than the former: that is to say, the ear can co-ordinate these two sounds with reference to the particular of their *duration.*

Again: if, immediately afterwards, we hear the cry of a jay, our ear can compare it with the previous sounds as to the point of *loudness*, and can decide that the jay's sound is louder than the other two: that is to say, the ear can co-ordinate these three sounds with reference to the particular of their *intensity.*

[1] These "silences" are included in Proposition 1, under the term "specially related sounds." For example, if a couplet of sounds be separated by a silence of one minute in duration, while another couplet is separated by a silence of two minutes in duration, these differing silences constitute an independent means of comparison between the two couplets; and, as such, the measured silence or rest may be considered one species of relations between sounds with sufficient accuracy for a proposition in which the most general terms are desirable.

Again: if we now hear in succession the grave coo of a dove and the keen piping of a field-lark, our ear can compare them as to the point of their relative *shrillness* or trebleness, and can decide that the latter is the shriller, or more treble, of the two: that is to say, the ear can co-ordinate these two sounds with reference to the particular of their *pitch.*

Again: if we now hear in succession the whirr of the grasshopper poised above the grass and the whistle of the partridge down the field, our ear can compare the two sounds as to the point of *tone-color*, and can decide that the grasshopper's note is somewhat like the low tones of the clarinet (having a certain fluttering quality characteristic of the reed-instruments), while the partridge's note has more likeness to the smoother flute: that is to say, the ear can co-ordinate these two tones with reference to the particular of their tone-color.

The foregoing are examples of the general co-ordination, or indefinite comparison, of sounds. But the reader is now asked to observe that in none of the instances given could the ear make any *exact co-ordination*, or definite measurement, of the sounds compared. To recur to the first example: while the ear could recognize that the song of the cricket was in a general way longer than that of the sparrow, it was unable to pronounce exactly how many times as long. So, in the second example, though we could say immediately that the jay's cry was more intense — that is, louder — than the sparrow's, we could not say how much more intense. In the third example, while we could pronounce the field-lark's note certainly higher in pitch than the dove's, we have no scale of degrees, like the musical scale, to which we could refer these two tones and as-

certain their precise distance from each other, or musical "interval." And finally, in the fourth example, while the tone-color of the grasshopper's whirr is sufficiently distinct from that of the partridge's whistle, it is not so distinct as to admit of more than a general classification as reedy.

But the art of tone, which includes the art of music and the art of verse, depends upon exact co-ordinations by the ear. It is therefore necessary for us to advance beyond the consideration of such sounds as are capable merely of general co-ordination, or indefinite comparison, by the ear, to the consideration of such sounds as are further capable of exact co-ordination, or definite measurement, by the ear.

Let it be here noticed that in the preceding propositions all that has been said generally of verse applies equally to music, — the other art of sound, — and that this will be the case for several propositions to come; though each proposition will be found to contain some limitation of the preceding one, so that we can presently arrive, by the method of successive limitations, at a point where a single step will separate the definition of verse from that of music. This method is of importance. It will presently be found that the sound-relations which constitute music are the same with those which constitute verse, and that the main distinction between music and verse is, when stated with scientific precision, the difference between the scale of tones used in music and the scale of tones used by the human speaking-voice.

But this is by anticipation. It is now necessary to ascertain what are the capacities of the ear for the definite measurement, or exact co-ordination, of sounds.

Stating the same purpose in different terms: since the four particulars mentioned (duration, intensity, pitch, and tone-color) comprise all the possible variations of sound and of silence, let us now inquire as to which of these particulars, if any, the ear of average persons has the power of *exactly co-ordinating* sounds. By the power of exact co-ordination is meant the power of conceiving the relations of sounds in terms of number, or in terms of degree. Thus if, of two sounds occupying different lengths of time, the ear is able to perceive that one was exactly twice as long as the other, it may be said that the ear has exactly co-ordinated, or definitely measured, those two sounds as to their duration, and has conceived the result in terms of number. If, again, any key of a piano be struck, and then another, and the ear recognizes the latter tone as lying at exactly six degrees (according to the musical scale of degrees) above the former, it may be said that the ear has exactly co-ordinated, or definitely measured, these two sounds with reference to their pitch, and has arrived at a conception of such co-ordination in terms of a precise scale of degrees. These illustrations will be carried farther in the next proposition.

Actual observation reveals that there are three particulars, and only three, as to which the ear has the power of exactly co-ordinating sounds. These three are duration, pitch, and tone-color.

Example of exact co-ordination with reference to the particular of duration. If a musician be asked to strike any key of a piano so that two of its sounds will exactly fill the time of one second, as marked off by a clock ticking seconds, he is able to do so without trouble: if, between any two ticks of the clock, he should hold

the key down longer than its legitimate time of half a second, the deviation from the proper time is immediately observed: if he be told to make four sounds to the second, instead of two, he distributes them thus with ease: indeed, these are the simplest forms of example, and the musician can interpose between each tick of the clock, with unerring precision, sounds bearing to each other much more complex relations of duration. It is obvious that his power to do so, as well as the power to recognize *when* he does so, depends upon the remarkable capacity of the ear (affirmed in the first clause of this proposition) to co-ordinate sounds exactly with reference to their duration.

Example of exact co-ordination with reference to the particular of pitch. If any two keys of a piano be struck in succession, the musician will immediately name the relation of the latter to the former in terms of the musical scale, by his ear alone. Thus if the first key struck be the middle C, and the next be the second white key to the right of it, he will announce the second as a major third above the first, or E: if the second key struck be the seventh white key to the right, he will announce it as the octave of the first; and so on. In other words, the human ear has the power of exactly co-ordinating sounds with reference to the particular of pitch, and of forming precise conceptions thereof which can be accurately expressed in degrees of the musical scale.

Example of exact co-ordination with reference to the particular of tone-color. If a given tone, say the middle C, be sounded on the piano, and the same tone — that is to say, a tone of the same duration (or length), of the same intensity (or loudness), and of the same

pitch — be sounded on the violin, the ear instantly recognizes a difference; if the same tone be then sounded on the flute, the ear recognizes a difference from both the others; if it be further sounded on the clarinet, the ear recognizes a difference from all the preceding. This difference, being by the supposition neither a difference of duration nor of intensity nor of pitch, must belong to the only other class of differences of which sounds are capable, namely, the class known as tone-color. We have already found that the difference between one vowel-sound and another in speech — the difference between *a*, for instance, and *o*, or that between *i* and *e* — belongs to this class of sound relations. The ability of the ear to discriminate the most delicate shades of difference in this particular constitutes one of the most remarkable of our faculties, and leads to some very interesting fields of thought. All the phenomena of rhyme and of alliteration, and several allied verse-effects which will be found herein treated for the first time, are due to this capacity of the ear for exactly co-ordinating sounds with reference to their tone-color.

While, as noted in the last proposition, the ear is capable of exactly co-ordinating sounds with reference to their duration, their pitch, and their tone-color, it is not capable of exactly co-ordinating them with reference to the other particular mentioned — intensity. We have already seen that a general or inexact co-ordination in respect of intensity was possible: indeed, it is not a matter requiring further illustration, that of two given sounds every ear can in a general way pronounce one to be louder or softer than the other. But *how much* louder or softer; whether twice as loud, or three times as soft; whether louder or softer according to the de-

grees of any given scale or standard of measurement: for such exact co-ordinations of intensity in sounds the ear has no means. There is here possible neither an appeal to terms of number, as when, in the case of duration, we can say that two sounds occupying a given time are followed by two sounds occupying exactly the same time, and so on; nor an appeal to a given scale of degrees, as when, in the case of pitch, the musician's ear pronounces definitely the relation of one tone to another by referring them to the fixed degrees of the musical scale (which is really a kind of primordial tune, always carried in the memory of the ear, and always available as a sort of graduated auditory yard-stick for measurement); nor, finally, an appeal to those easily-preserved and fixed conceptions of tone-color which the ear retains, and by which it compares a given tone with recollected tones so as instantly to recognize them as flute-tones, as piano-tones, as violin-tones, and so on. We have no standard within the mind for the precise measurement of intensity in sound; that is, the ear is not capable of exactly co-ordinating sounds with reference to the particular of intensity.

Since an art of sound must depend primarily upon exact co-ordinations by the ear, and since these exact co-ordinations are, as just shown, possible only in respect of duration, pitch, and tone-color, it is evident that these three sound-relations constitute three distinct principles to one or the other of which all the primary phenomena of this art must be referred. They thus afford us three fundamental principles of classification for the effects of sound in art. The effects ordinarily known as "rhythm" depend primarily upon duration;[1] those

[1] For detailed proof of which see the special discussion of rhythm in Part I. following.

known as "tune" depend upon pitch; those known as "colors" in music, and as "rhymes" and "alliterations" in verse, — besides many allied effects of verse which have never been named, — depend upon tone-color. Stated in other terms: —

I.

When the ear exactly co-ordinates a series of sounds and silences with primary reference to their duration, the result is a conception of . . . . RHYTHM.

II.

When the ear exactly co-ordinates a series of sounds with primary reference to their pitch, the result is a conception of . . . . . TUNE.

III.

When the ear exactly co-ordinates a series of sounds with primary reference to their tone-color, the result is a conception of (in music, flute-tone as distinct from violin-tone, and the like; in verse, rhyme as opposed to rhyme, vowel varied with vowel, phonetic syzygy, and the like), in general . . . TONE-COLOR.

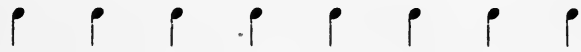
The term "primary reference" in the last proposition hints at a secondary use which is made, not only of the inexact relation, intensity, but also of the three exact relations, in the art of sound. As soon as this secondary use is explained, — as will now be done, — actual illustrations of all the preceding abstract propositions can be given, which will clear them of obscurity.

The secondary use of the four relations — duration, intensity, pitch, and tone-color — occurs only by way of adjunct in that great class of sound-effects marked I. above, — the class known as rhythm.

For the purpose of enabling the ear to make exact co-ordinations of a long and complex series of sounds

with reference to their duration, it becomes convenient to arrange the sounds so that the whole body may be grouped by the ear into smaller bodies which can be, as it were, handled with more ease. It is to effect this grouping that the secondary use of the sound-relations is made. How they are employed for this purpose will appear from the following illustration, which is arranged with two purposes: one, to explain certain effects upon the ear which have been greatly misconceived, by showing exactly parallel effects upon the eye which no one ever confuses; and the other, to begin acquainting the student with the musical system of notation — a system which is adequate to all the phenomena of rhythm, that is, adequate to express in visible characters all the conceptions which result when the ear co-ordinates a series of sounds with primary reference to their duration and with secondary reference to any or all the other sound-relations.

The following scheme presents a series of eight characters exactly similar in size and in distance apart: —



Let it be proposed to mark off for the eye groups of two characters each along the whole series. This might be done in several ways. For example, we might make the stem of the first character *longer* than that of the second, and repeat this variation through the series: —

or we might begin with the second character, and effect the same result by lengthening every second stem in the series: —

either method dividing the series for the eye into groups, of two characters in each. It is obvious that we might have effected the same grouping for the eye by *shortening* either every first or every second stem in each group, or, in general, by any recurrent variation in length. Further: we might apply the same method, not to the characters, but to the distances between them. Thus we might mark them off into groups for the eye by lengthening or shortening, or in any way consistently varying, the spaces between the couplets;

that is to say, in general, a series of characters may be marked off into groups for the eye by any recurrent variation in length, either of the characters, or of the spaces between them.

Before proceeding to other methods of grouping, let us now transfer these conceptions of the eye to the ear. Suppose the eight characters used above to be eight signs of sounds, as they in fact are, being the "quarter-notes" of the musical system of noting rhythm to be presently explained in full. Now the series of eight sounds represented by eight such characters could be marked off into groups of two each for the ear, just as the characters themselves were marked off for the eye, either by varying the length of every second sound (as we varied the length of every second sound-sign), or by varying the length of the interval of silence between every two sounds, as we varied the length of the distance between the couplets of sound-signs.

Thus the ear, having co-ordinated a series of eight sounds with primary reference to their duration, and having thus set up what we may call a primary rhythmus among the *individual* units of sound, may again co-ordinate the same sounds with secondary reference to their duration in order to divide them into *groups* of two or more units; each group being distinguished by some variation in the duration of either of its sounds, or in the duration of the silences between them.

But again recurring to the eight characters as merely visible signs: they might be marked off into groups for the eye by variations in their intensity. Suppose, for example, the first be printed in ink of an intenser black than the second, and this variation be consistently carried on through the eight: —

It is obvious, without carrying this process through the details of the last, that a grouping could be marked off for the eye by any recurring variation of intensity. It is easy to transfer this process, as before, from the eye to the ear.

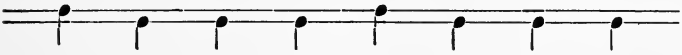
Given a series of eight sounds already co-ordinated by the ear with reference to their duration, and thus already established as primarily rhythmical: such a series could be marked off into groups by making any sound of each group louder or softer than the other sound or sounds of that group, that is, by any recurrent variation in the intensity of that sound. Here it may be seen how the exact co-ordinations which were necessary to the artistic use of the other sound-relations, duration, pitch, and tone-color, are not necessary in this use of intensity, which, we found, cannot be exactly co-

ordinated by the ear; for the use of intensity in grouping sounds does not require exact co-ordination. If, for example, every second sound in the series be in any degree louder or softer than its fellow, the series will be grouped into twos; if every third sound be in any degree louder or softer than its adjacent two, the series will be grouped into threes, and so on; no particular degree of intensity being needed for the mere purpose of making the ear notice every second, every third, every fourth sound, and so on.

Here, too, an important additional consideration may now be mentioned, namely, that both these methods (or, as we shall afterwards see, any three or all four of the methods) may be used at once, to give greater distinctness to the grouping of sounds for the ear. It is easy to see that in grouping the above-mentioned eight characters for the eye, we might both vary the stem and vary the blackness (intensity) of every other character, and so group them into twos by both the methods of duration and intensity; and, similarly, we can group the corresponding series of sounds into twos by making every other sound both longer (duration) and louder (intensity), or both shorter (duration) and softer (intensity): in short by varying every other sound in both the particulars of duration and intensity. So we might group into threes, fours, &c., by varying every third, fourth, &c., sound in both these particulars. Of course, such a grouping would be all the more strikingly marked off for the ear by the use of the two methods to distinguish the leading sound in each group.

But, to recur to the eight characters as affecting the sense of sight: they might be marked off into groups

for the eye by making every second, third, fourth, &c., character *higher or lower* than the rest of its group. Thus the scheme



plainly divides the eight into two groups of four by making the first a little higher than the next three, and so on. Transferring to the sense of hearing: we might group these eight sounds for the ear by making every first, second, third, &c., sound *higher or lower in pitch* than its neighbor or neighbors. Thus we make a secondary use of pitch in grouping sounds for rhythm, which may be at the same time primarily co-ordinated by the ear with reference to the same relation, — pitch, — for a wholly different purpose, namely, tune — always the primary conception resulting from any change of pitch.

It is scarcely necessary to say that this method, as before, can be superadded to the others; that is to say, a series of sounds and silences already co-ordinated primarily with reference to duration, to establish their general rhythmic nature, may be secondarily co-ordinated or grouped (and it may be well to notice that these two terms, "secondary co-ordination" and "grouping," are always convertible) by making any given sound — say the first in every group of two, the second in every group of three, and so on — vary from the rest of its group in all the three particulars of duration, intensity, and of pitch. Of course, each superimposed variation upon a given sound would attract the ear's attention to the recurrence of that sound all the more strongly.

It remains to notice the possible secondary use of the only other sound-relation, tone-color, in grouping

sounds. The illustration as to the eye readily suggests that the eight notes might be grouped for the sense of sight by making every second, third, &c., note of a certain color, say red, while the other note or notes of each group were blue. It is easy to see that we could group our eight *sounds* in any manner we pleased by the similar process of a recurrent variation in tone-color. Suppose, for example, that the first tone should be struck on the piano, the next three on a guitar, the next on the piano, the next three on the guitar, &c., the series of sounds would necessarily divide itself for the ear into two groups of four, the varying tone-color of the piano from that of the guitar serving to effect the division. In the case of verse this varying tone-color would take the form of a recurrent vowel-sound, a recurrent rhyme, and the like tone-colors.

It is scarcely necessary to add that this secondary use of tone-color in grouping sounds can be superimposed upon the three others. In the grouping into fours last suggested, for example, each controlling tone struck on the piano might be both longer (duration), louder (intensity), and higher (pitch) than the three struck on the guitar. Rhythmic groups thus marked off would of course command the ear's attention in a very powerful way.

We have now reached a point where we can profitably inquire as to the precise differentiation between the two species of the art of sound — music and verse. We have found that the art of sound, in general, embraces phenomena of rhythm, of tune, and of tone-color. Many will be disposed to think that the second class of these phenomena just named — tune — is not found in verse, and that the absence of it should be one of the first differences to be noted as between music and verse.

Tune is, however, quite as essential a constituent of verse as of music; and the disposition to believe otherwise is due only to the complete unconsciousness with which we come to use these tunes after the myriad repetitions of them which occur in all our daily intercourse by words. We will presently find, from numerous proofs and illustrations which are submitted in Part II., on the Tunes of Verse, that our modern speech is made up quite as much of tunes as of words, and that our ability to convey our thoughts depends upon the existence of a great number of curious melodies of speech which have somehow acquired form and significance. These "tunes" are not mere vague variations of pitch in successive words, — which would deserve the name of tune only in the most general sense of that term, — but they are perfectly definite and organized melodies of the speaking-voice, composed of exact variations of pitch so well marked as to be instantly recognized by every ear. If they were *not* thus recognized a large portion of the ideas which we now convey with ease would be wholly inexpressible. Reserving, then, all details upon this matter until their appropriate place under the head of the Tunes of Verse, in Part II. above cited, it will be sufficient here if the reader is asked to realize them in a practical way by first attempting to utter any significant sentences of prose or verse in an absolutely unchanging voice from beginning to end. This will be found quite difficult, and when successfully executed produces an impression of strangeness which all the more clearly illustrates how habitually and how unconsciously the tunes of speech are used. If, having uttered the sentences in a rigidly unvarying tone, the reader will then

utter them in the tunes which we feel — by some inward perceptions too subtle for treatment here — to be appropriate to them, it will be easily seen that definite successions of tones are being used, — so definite that they are kept in mind for their appropriate occasions just as words are, and so regular in their organizations as to be in all respects worthy the name of "tunes," instead of the vague terms "intonation," or "inflection," which have so long concealed the real function of these wonderful melodies of the speaking-voice.

The art of verse, then, as well as the art of music, — the two species of the genus art of sound, — includes all the three great classes of phenomena summed up under the terms rhythm, tune, and tone-color. We will presently find many problems solved by the full recognition of this fact that there is absolutely no difference between the sound-relations used in music and those used in verse.

If this be true, — if the sound-relations of music and verse are the same, — we are necessarily forced to look for the difference between the two arts in the nature of the *sounds* themselves with which they deal. Here, indeed, the difference lies. Expressed, as far as possible, in popular terms, it is as follows: —

When those exact co-ordinations which the ear perceives as rhythm, tune, and tone-color, are suggested to the ear by a series of *musical sounds*, the result is . . . MUSIC.

When those exact co-ordinations which the ear perceives as rhythm, tune, and tone-color, are suggested to the ear by a series of *spoken words*, the result is . . . VERSE.

But it is necessary to attain a very much more philosophical view of the relation between "musical sounds" and "words" than is generally implied in the

popular use of those terms; for a slight examination will show that words are themselves musical sounds. They are the results of regular vibrations; they are capable of the exactest co-ordination in respect of their duration, their pitch, and their tone-color; they are capable of as exact co-ordination in respect of their intensity (loudness or softness) as any other sounds; they give pleasure to the ear by their fall: in short, without here attempting a definition of musical sounds, it must be said that from a scientific point of view there is no incident of them which is not also an incident of words. For all purposes of verse, words are unquestionably musical sounds produced by a reed-instrument — the human voice. It must therefore be clearly understood by the reader that, in the above distinction between music and verse, what are called musical sounds are only one set out of the possible body of musical sounds; while what are called words are another set; that is, that "words" (in the sense of the above distinction) means simply one kind of musical sounds, and "musical sounds" means simply another kind. It is to be regretted that our language does not afford us more precise terms for these purposes. Music, although a very old art, has only recently been investigated by exact methods: the same may be said of poetry; and it is probably owing to this circumstance that we have no terms which embody precise relations between spoken words and musical tones. The terms "vocal" and "instrumental" are not satisfactory, because they hide one of the most important facts to be kept in view in all such investigations as the present, namely, the purely instrumental character of the speaking-voice and of its tones (words). "Vocal" here *is*

"instrumental." Let the reader always conceive, first, a general body of musical tones; then let the speaking-voice be conceived as an instrument consisting of a tube (the mouth, nose, and throat) and a pair of reeds (the vocal chords), which produces a certain set of these musical sounds. It is true that this certain set has received a special name, "words," because it has come to be used for a special purpose, namely, that of communicating ideas from man to man. It will assist the reader to a clearer conception of this matter, if the fact be called to mind that the selection of vocal sounds for the purpose of communicating ideas was not at all a necessary one. Other sets of musical sounds might have been selected for this purpose, those of whistles or flutes, for instance; or no sounds at all might have been used, and "words" might have been entirely eye-signs, as is actually the case with the deaf and dumb. In fine, when the term "words" is used as describing the peculiar set of sounds used in verse, the reader must understand it merely as a convenient method of singling out that specialized set of musical sounds made by the musical instrument called "the human speaking-voice."

But what, then, are the distinguishing characteristics of these sounds which specialize them into a set distinct from the general body of musical sounds?

These characteristics are two: (*a*) the generic and specific tone-colors of the human speaking-voice; and (*b*) the peculiar scale of tones used by the human speaking-voice.

(*a*) By "the generic tone-color" of an instrument let us understand that general peculiarity of tone-color which enables us to distinguish tones made upon any instrument of that class as distinguished from tones

made upon any instrument of a different class; for instance, the violin has its generic tone-color as distinguished from the generic tone-color of the flute, or from the generic tone-color of the piano. But subject to this general resemblance of tone-color among all the instruments of a class, enabling us to distinguish the violin-class, the flute-class, the piano-class, &c., there exists a great variety of minor or specific tone-colors, which not only distinguish one particular instrument from another of the same class, but even the tones evoked from the same instrument by two different players. Thus we not only say, "The tone of this violin is better than that one, the tone of this piano is poorer than that" (the "tone" in such expressions meaning the tone-color); but we say of two persons playing on the same violin or piano, "I like So-and-So's tone better than the other's," and so on; the word "tone" always being used for tone-color.

But — and this is the point to which the foregoing considerations have been gradually bringing the reader's notice — not only do these differences of tone-color exist as between instrument and instrument of the same class, and as between player and player upon the same instrument, but the same player upon the same instrument may produce tones of the same pitch, yet of different tone-color; and the tones of any instrument differ in tone-color as they are high or low, or made upon different parts of the instrument. Thus on the violin, for example, a player may make the tone D either by playing the next to the lowest string *open* (that is, without any finger on that string), or by putting his little finger in the First Position on the lowest string; but the two D's made in this way will differ

greatly in tone-color. Similarly, on the piano, if the D key be first struck with a short, sharp blow by the finger, and then with a lingering, gradual touch, the two tones resulting, though the same in pitch, will differ greatly in tone-color. Now, in this capacity of varying the tone-color of sounds made on the same instrument the human speaking-voice is very wonderful, and excels all other instruments. Every vowel-sound, every consonant, every combination of letters in a syllable, every shade of pronunciation, is simply a difference of tone-color made by the almost instantaneous changes which the muscles of the mouth and throat can effect in the shape of the buccal cavity. It is this facility in the production of tone-colors which gives the human vocal apparatus pre-eminence as a speech-instrument. No other instrument could be devised which would furnish such a copious variety of elements for a language with such ease and quickness.

These considerations have now brought us to a principle which will be largely used in the present work, and which may be stated as follows: —

Print and writing are systems of notation for the tone-colors of the human speaking-voice. The sign *a*, for instance, gives us to understand a tone-color produced by a certain adjustment of muscles which we have all learned to make when we see that sign, and which results in a certain shape of the buccal cavity, giving the tone-color indicated. When we see the sign *n*, we understand (though we have done it so often as to become wholly unconscious of the separate steps of the process unless our attention is specially fixed on them) that we are to take away from the inner end of the nostrils the membrane which divides them

from the mouth-cavity and thus add the length of the whole nostril-tube to the length of the mouth-and-throat tube, so producing that hollow and resonant tone-color which we associate with *n*.

This view of written or printed letters as a system of notation for tone-color brings into sharp form the difference (*a*) between music and verse. Music has no such system for tone-color. The generic tone-color in music is, of course, indicated by stating the instrument upon which the strain is to be played, as "flute" for this strain, "violin" for that, "horn" for another, and so on. But beyond certain marks for indicating upon what string of the stringed instruments a certain strain is to be played, and a few other signs which more or less incidentally convey ideas of tone-color, music has no system of tone-color notation; and many uses[1] of tone-color are made in verse which are not known in music.

(*b*) But we must now go on to discuss the second above-mentioned difference between music and verse, namely, the different scale of tones used in verse from that used in music. It is this difference which renders the tunes of verse so much more subtle than those of music.

In explaining it: the reader unfamiliar with music must understand that that art does not use by any means all the musical tones which are possible, but only a particular set of tones which have been chosen out of the possible body of tones according to certain principles of selection. A list of the particular set of tones thus chosen is called a "scale." This may be illustrated in the following manner: —

[1] See particularly the uses of rhyme and alliteration for purely rhythmic effects, detailed in Part I.

Consider the harp-shaped frame of strings arranged side by side which is seen when the top of a piano-forte is raised. Upon an ordinary piano (tuned usually a little below concert-pitch) the lowest of these strings — that which is set in vibration by the key lying at the extreme left as one faces the piano — will make about twenty-four vibrations in a second; the next string — that which is set in vibration by the shorter black key lying next to the first — will make about twenty-five and one-half [1] vibrations per second; and if one should go on striking the black and white keys in succession until the first thirteen keys were struck, the strings thus set in motion would execute nearly [2] the series of vibrations presented in the following list: —

STRING.	VIBRATIONS IN A SECOND.
1	24
2	25½
3	27
4	28½
5	30
6	32
7	34
8	36
9	38
10	40
11	42½
12	45
13	48

[1] Of course it would be out of place, in an explanation which at its simplest is somewhat complex, to go into the question of enharmonic differences. The piano was selected for the present illustration on account of the clearness afforded by carrying out its theory of equal temperament with only slight inexactness.

[2] This series is arranged with a view to presenting as nearly a set of round numbers as possible, small fractions being rejected.

But, confining the attention for a moment to the thirteen tones produced by these thirteen rates of vibration, it is clear that several strings might be stretched alongside *each of* these thirteen, which would vibrate at different rates, and give different tones. For example, observe that, while the first string vibrates 24 times in a second, the next string, instead of vibrating $24\frac{1}{2}$ times, or 25 times, in a second, vibrates $25\frac{1}{2}$ times: that is to say, the scale *omits* the tones produced by the possible intermediate rates of vibration ($24\frac{1}{2}$, 25, to take no smaller fraction than $\frac{1}{2}$, though, of course, they might be $24\frac{1}{4}$, $24\frac{2}{4}$, $24\frac{3}{4}$, 25, $25\frac{1}{4}$, and so on), and *selects* the rate $25\frac{1}{2}$ to come immediately after 24. And, going on with this argument, the next tone beyond $25\frac{1}{2}$ shows us a jump over the possible intermediate rates to the rate 27 in a second; the next jumps over the possible intermediate rates to the rate $28\frac{1}{2}$ in a second; and so on, until the jump from the next last to the last is from 45 in a second to 48 in a second. Now these jumps, which proceed, as the reader easily observes, with a certain regularity, show us the principle of selection according to which the tones of the scale are chosen by the European ear. The procedure, as shown, is to start with a given tone for the first, and take for the second a tone which is to the first as $25\frac{1}{2}$ is to 24; for the third, a tone which is to the first as 27 is to 24; and so on, until the thirteenth tone is to the first as 48 is to 24, that is, made by exactly twice as many vibrations as the first. This tone, made by twice as many vibrations as the first, is called the "octave;" and, when we reach the octave, we take that tone for a new starting-point, making the next tone bear to it the proportion which exists between the first two

tones considered, that is, the proportion of $25\frac{1}{2}$ to 24; the next tone must be to the octave (48) as 27 to 24; the next as $28\frac{1}{2}$ to 24; and so on until we reach the tone represented by 96 vibrations to the second, or the octave of 48; then we repeat the same proportions, until we have tuned all the strings of the piano. The first octave, it will be noticed (that is, the first thirteen tones considered), gave all the proportions necessary for arranging the whole scale of the piano according to the musical principle of selection; and the series of tones included in thirteen[1] successive ones thus arranged is called a scale.

In short, European music employs only a small portion of the tones theoretically capable of being employed, since the intervals of the received scale omit many possible intermediate tones.

But the scale used in verse — that is, the list of all the tones employed by the speaking-voice — rejects these intervals and includes every tone perceptible by the ear within the limits of its range. That is to say: if we should set about forming the scale of the speaking-voice as we did that of the piano, we would begin with (say) the lowest tone of a man's voice — a tone produced by about 65 vibrations in a second — for the first tone of the scale; for the second tone we would not skip, as in the case of the piano, to another tone lying at a distance of several possible intermediate tones from the first, but we must take the next possible tone, that is, the tone which is so near the first in pitch that if it were any nearer our ear could per-

[1] For the sake of students who are here studying the scale for the first time, all complications of diatonic and chromatic scales are omitted, being, indeed, details not the least necessary to the demonstration.

ceive no difference. Referring the reader to the discussion of The Tunes of Verse in Part II., for the proofs that the voice does use such a scale, as well as for the limits of the ear's perceptive capacity in distinguishing between the pitch of tones nearly alike, we can now formulate this second difference between music and verse into the somewhat more definite proposition that —

The scale of music omits many possible tones between its limits, selecting only certain tones according to a definitely arranged order of intervals : the scale of verse embraces all the tones possible within the limits of the human speaking-voice.[1]

The foregoing proposition aims only to state the distinctions between music and verse: it will not be found complete for other purposes. For example, it would not serve to discriminate verse and prose. Prose has its rhythms, its tunes, and its tone-colors, like verse ; and, while the extreme forms of prose and verse are sufficiently unlike each other, there are such near grades of intermediate forms that they may be said to run into each other, and any line claiming to be distinctive must necessarily be more or less arbitrary. The art of sound must always be regarded the genus, and music and verse its two species. Prose, scientifically considered, is a wild variety of verse.

[1] The author hopes in a future edition to present experimental verifications of this doctrine as to the scale of verse. The process of arriving at the average capacity of the ear for discriminating slight differences of pitch involves many personal equations, as may easily be seen; and a satisfactory result could be obtained only from a large number of experiments. Meantime perhaps the considerations offered in support of the doctrine in Part II. will be accepted as giving it at least the position of a working hypothesis.

The science of verse, then, observes and classifies all the phenomena of rhythm, of tune, and of tone-color, so far as they can be exhibited to the ear directly by spoken words, — or to the ear, through the eye, by written or printed signs of spoken words, — or to the mind by the conception of spoken words ; and,

The science of *English* verse observes and classifies these phenomena so far as they can be indicated through the medium of spoken English words.

Here the general subject seems sufficiently divided. The phenomena having been primarily classified upon the principle of referring them to the physical processes which cause them, the more special investigations which follow naturally arrange themselves into three parts, to wit:

Part I. . . .	The Rhythms of English Verse;
Part II. . . .	The Tunes of English Verse;
Part III. . . .	The Colors of English Verse.

PART I.

THE RHYTHMS OF ENGLISH VERSE.

CHAPTER II.

OF THE DURATION AND GROUPING OF ENGLISH VERSE-SOUNDS.

EACH "sound," for the purposes of verse, is represented by one syllable. Such a syllable may consist of a single letter forming a word, as the vocative O; or a single letter forming one syllable of a word, as *a*-way; or, in general, of any number of letters which may be caused to present to the ear the impression of a single discrete mass of tone-color. Thus, within the meaning of verse, "O" is one sound, though represented by only a single letter; while "through" is also but one verse-sound to the ear, though represented to the eye by seven letters, or signs of sound.

The reader must carefully notice the shifting senses in which the word "syllable" is often used; one denoting the sound, and one denoting the combination of letters which is the *sign* of that sound. To avoid the confusion of this double meaning, it is better to use always the term "sound" — distinguished, when necessary, as "verse-sound" — to denote each discrete impression indicated to the ear by any letter, or combination of

letters, ordinarily called a syllable. For example, in the line: —

"Among trunks grouped in myriads round,"

there are nine distinct verse-sounds, represented by combinations of letters differing widely in number, to wit:

First sound	*A-*
Second sound	*mong*
Third sound	*trunks*
Fourth sound	*grouped*
Fifth sound	*in*
Sixth sound	*myr-*
Seventh sound	*i-*
Eighth sound	*ads*
Ninth sound	*round.*

Here we find that the first verse-sound is represented by one letter, the second by four letters, the third by six, and the fourth by seven.

The reader should acquire the habit of consciously separating words, phrases, and sentences into these constituent verse-sounds. Every English-speaking person does this *un*consciously; for,

It is the English habit to utter each word, whether prose or verse, in such a manner that the sounds of which it is composed bear to each other definite and simple relations in point of time. By "definite and simple relations" is meant the relations either of equality or of proportion according to the small numbers 1, 2, 3, 4, 5, &c. For instance, if two sounds occupy exactly equal times, they are said to bear to each other the relation of equality, or the proportion of 1 to 1; if one of the sounds occupies exactly half as much time as the other, they are said to bear to each other the

definite and simple proportion of 1 to 2; if one is three times as long in duration as the other, they bear to each other the definite and simple proportion of 1 to 3; and so on. If one sound were three and a third times as long as the other, or two and a seventh times as long, or one and a sixth times as long, or any like numbers, the proportion would be *in*definite (to the ear, at least), and *un*simple, or complex. Let the reader observe the remarkable circumstance, — which has probably not been sufficiently attended to, — that these proportions between successive English sounds might have been quite as indefinite and complex as those between the numbers just suggested, or even much more so. There seems to be no reason in the nature of things, apart from the wonderful rhythmic sense of men, — which must presently be set forth, — why the proportion of 1 to $1\frac{49}{87}$ (for example) might not have answered all economical purposes in speech, as well as that of 1 to 1, or 1 to 2, or 1 to 3, or 1 to 4.

Of course it is understood that this proposition has no reference to the absolute time occupied by English words: it concerns only their relative time. The actual average rate of English utterance is probably about one hundred and eighty words to the minute, or three words to the second, or one word to one-third of a second; and if each word were a monosyllable, or one-sound word, then we could say that the absolute time of each sound was one-third of a second. Of course, this rate varies very greatly; but its variation does not in the least affect the truth of the proposition concerning the *relative* time occupied by English sounds. Whether the first sound of any series occupy the third, the half, the sixth, or any other part of a

second, what is asserted is, that the other sounds will bear simple and definite relations to it in point of time.

This principle may now be stated in terms of a preceding proposition thus: every series of English sounds, whether prose or verse, suggests to the ear exact co-ordinations with reference to duration. And inasmuch as "exact co-ordinations with reference to duration" is only a scientific term for *rhythm* from a certain point of view, we may say sweepingly that,

All English words are primarily rhythmical.

The term "primary rhythm" will be of great service. The following considerations will illustrate its meaning more fully.

If equal or simply-proportionate intervals of time be marked off to any of our senses by any recurrent series of similar events, we may be said to perceive a primary rhythm through that sense. Thus, if a rose be waved before the eyes once every second, we may be said to have a perception of primary rhythm through the sense of sight; if the rose be held under the nostrils once every second, we would have primary rhythm marked off for the sense of smell; if it should be pressed upon the forehead once every second, we would perceive primary rhythm by the sense of touch; if it should be crushed on the tongue every second, we would perceive primary rhythm by the sense of taste; and, if it should be whirred swiftly past the ear every second, we would perceive primary rhythm by the sense of hearing.

But this primary rhythm may be considered a sort of primordial material, which the rhythmic sense of man always tends to mould into a more definite, more strongly-marked, and more complex form that may well be called secondary rhythm. The nature of secondary

rhythm, and the strength of the tendency which all ordinary people have to mark off any set of events which have established a primary rhythm into subordinate sets or groups whose relations to each other constitute a secondary rhythm, may be gathered from the following familiar illustration.

A clock which ticks seconds may be said to set up a primary rhythm for the ear which hears each recurrent tick. These ticks are exactly alike: they fulfil the definition of primary rhythm, which describes it as a conception resulting from a similar event recurring at equal (or simply-proportionate) periods of time. But every one who has been in a room alone with a ticking clock must have observed that every other tick seems to be different, somehow, from its fellow, as if it said, "Tick-*tack*, tick-*tack*," &c.; and the effect of this difference is to arrange the whole series into groups, of two ticks in each group. Now, this grouping is secondary rhythm. The ear not only goes on comparing each tick with tick as a *primary* unit of rhythmic measure; but it proceeds to compare each group of two ticks with its fellow-group of two ticks, thus constituting a *secondary* unit of rhythmic measure. These processes, and several extensions of them which must presently be detailed, are precisely what are carried on in verse. Before transferring them to that, let us examine for a moment the means by which the secondary rhythm is established in the series of clock-ticks.

We found that a certain "difference" in the sound of every alternate tick from the sound of its fellow-tick marks off the whole series into twos. What is this difference in sound? If we examine it closely, we perceive that it seems to be not only a difference in *pitch*,

— as if the clock, instead of saying, "Tick-tick, tick-tick, tick-tick," and so on, should say, "Tick-*tack*, tick-*tack*, tick-*tack*," and so on, — but also a difference in emphasis, stress, or accent (that is, in *intensity*), as if the clock said, "Tick-táck, tick-táck," and so on.

Here we see how a series of clock-ticks already having a primary rhythm — that is, a primary unit-of-measure of time as between each separate tick — is also made to have a secondary rhythm — that is, a secondary unit-of-measure of time as between each group-of-two ticks; and that this secondary unit-of-measure is established by means of a difference in pitch and in intensity between every alternate tick and its fellow, or, in other words, by a recurrent variation in pitch and in intensity.

This illustration advances us to the principle that

The tendency to arrange any primary units of rhythm into groups, or secondary units of rhythm, is so strong in ordinary persons, that the imagination will even effect such a grouping when the sounds themselves do not present means for it.

For the grouping of the clock-ticks into twos seems really due to our imagination, and not to any difference in the sounds actually made by the machinery; as may be proved by concentrating the attention upon now one, now another, of the ticks; when it will be found that we can at pleasure change the order of the series, converting the "tick" into a "tack," or the reverse. In short, we here see evidence that whenever the primordial material of rhythm — that is, a series of sounds having among themselves definite relations of time or duration — is presented to the ear, the tendency to rhythmize these further, by grouping the original

units into that larger form of rhythm called secondary rhythm, is so strong that the imagination will fancy the accentuation requisite for the purpose of such secondary grouping.

It will be of use to mention here, by way of anticipation, that it is this secondary rhythm which is usually meant by the term "rhythm" in ordinary discourse, and that the variations in pitch and in intensity by which we saw it effected among the clock-ticks are what is usually called "accent" in English treatises. The point to be rigorously observed here is that all secondary rhythm (in ordinary language, all "rhythm") necessarily presupposes a primary rhythm which depends upon considerations of time or duration: in other words, that rhythm of any sort is impossible, except through the co-ordination of time. Time is the essential basis of rhythm. "Accent" can effect nothing, except in arranging materials already rhythmical through some temporal recurrence. Possessing a series of sounds temporally equal or temporally proportionate, we can group them into various orders of larger and larger groups, as we shall presently see, by means of accent; but the primordial temporalness is always necessary.[1]

[1] These considerations, which have been purposely put into a somewhat rambling form in order to present the matter from several points of view, can now be summed up in a convenient demonstration. The theorem is, *there can be no rhythm in sounds, except through their relative time or duration* ("Quantity").

For only four kinds of sound-relation are possible: namely, those of (1) duration or time, (2) intensity, (3) pitch, and (4) tone-color. Now, if duration be not the sound-relation essential to rhythm, either intensity, or pitch, or tone-color must be that relation.

(*A*) But intensity cannot be it.

For, if so, the ear, in co-ordinating sounds with reference to their loudness or softness alone, would perceive rhythm. Now, co-ordinations must be either (*a*) inexact, or (*b*) exact.

That any confusion or doubt upon this point should ever have arisen must indeed seem strange, particularly to those who approach the consideration of verse after a practical acquaintance with music. Perhaps the best train of reflection for any one whom the current doubts about the so-called "quantity" of English words may have caused to hesitate in accepting the sweeping propositions just given is to try what possible method of rendering sounds rhythmical would remain to the musician, if the sounds were not simply related to

(*a*) But inexact co-ordinations of intensity cannot result in the perception of rhythm; for, since all sounds have *some* intensity, no sounds could then be unrhythmical, which is absurd.

(*b*) Nor can exact co-ordinations of intensity produce perceptions of rhythm; for the ear cannot make exact co-ordinations of intensity. (See Proposition 5.)

(*B*) Again: pitch cannot be the relation essential to rhythm.

For, if pitch alone can render sounds rhythmical, it must do so either by their (*c*) sameness in pitch, or by their (*d*) difference in pitch.

(*c*) But sounds are rhythmical which are not the same in pitch, as the existence of music shows.

(*d*) While, on the other hand, sounds are rhythmical which *are* the same in pitch, as is shown by all the rhythmic combinations made upon the drum, the triangle, the cymbal, the gong, the bones, and other similar instruments which do not vary in pitch, or by the numberless rhythms which can be marked off for the ear upon any single key of a piano

(*C*) Lastly, tone-color alone cannot be the basis of rhythm.

For, if it were, it would have to be so either through (*e*) sameness of tone-color, or (*f*) difference of tone-color, in the successive sounds.

(*e*) But sameness of tone-color cannot be essential to rhythm; for, if so, every line of verse could contain but one vowel-sound; while, on the other hand,

(*f*) Difference of tone-color cannot be essential to rhythm, because numberless rhythms (as in Sect. *B*) can be marked off for the ear upon a drum, — all of whose successive sounds are the same in tone-color, — or upon a triangle, a gong, a single key of the piano, &c.

If rhythm is therefore independent upon either intensity, pitch, or tone-color, it must be dependent upon the only other possible sound-relation — time, duration, or quantity.

each other in point of *time*. He might, of course, divide any given sounds off into groups by means of accent, or emphasis, or by means of recurrent variations in pitch or in tone-color. But groups of what? No group would present any relation to any other group which could enable the ear to co-ordinate them as to rhythm. Suppose, for example, that we should group eight successive sounds into four groups of two each, by making every alternate sound louder and higher than its fellow; but suppose — to take only the simpler forms of *un*-simple relations in time — the first sound to be one and a fourth times the second in duration, one and a fifth times the third, one and a sixth times the fourth, one and a seventh times the fifth, and so on: it is easy to see, that, while we would here have four groups, they would not be groups of any thing in particular, and would be wholly incomparable and incommensurable by the ear.

In music this is plainly enough seen. A "bar" in music — or a "foot" or "measure" in verse — is exactly one of the "groups" described in the clock-tick illustration, only made, not by the imagination, but but by an actual stress clearly calling the ear's attention to some given tone of each group. In a strain of music any bar is exactly equal to any other bar[1] in the time it occupies. If this equality in time were taken away, no possibility of rhythm would remain; and it must be apparent that the possibility of rhythm is the same, whether the rhythm be music-rhythm or verse-rhythm; the only difference between the two being that in

[1] Of course an *accelerando* in the course of the strain affects only the absolute time · the relative time remains always equal in the type which the mind constructs of the rhythm of the piece.

music the time is marked off for the ear by musical sounds, while in verse the time is marked off for the ear by verse-sounds. In both cases, it is always and necessarily *time* which is marked off.

It seemed necessary to interrupt the discussion of English sounds with so much of a digression upon the nature of rhythm in general, and of primary and secondary rhythm in particular, in order to develop intelligibly the remarkable rhythmic properties which have arisen in English words and phrases through the genius of our speech. The essential function of time, or duration, in all rhythm, has been dwelt upon, and repeated, on account of the great variety of hesitating and confused opinions which have been held, and which still prevail, as to what is called "quantity" in English verse. "Quantity" is a term originally used to denote the relative duration of Greek and Latin verse-sounds. In those two languages the duration of successive verse-sounds was, or is alleged to have been, not only confined to a single proportion, namely, that of 1 to 2, all the sounds being divided into "longs" and "shorts," of which any "long" was equal in time to two "shorts;" but this proportion was *fixed* for each sound, so that a long was always a long, a short always a short, and so on.

But as it was evident that neither of these limitations held in English verse, — that is to say, as it was evident that English verse-sounds bore other proportions to each other than that of 1 to 2, and were not fixed in quantity, the same verse-sound sometimes doing duty as a "long," sometimes as a "short," and sometimes as neither, — many drew from these facts the inference that there was no such thing as quantity at all in our

verse. A slight examination will show, however, that (leaving out of view the primary fact that no rhythm is possible without quantity, — that is, time, — as just shown) this inference is not at all warranted by the circumstances cited. The logical conclusion from them would be, not that there is no quantity among English verse-sounds, but that their quantity is differently determined from that of the classic verse-sounds.

In point of fact, quantity is inseparable from all English words; though it is shifting, exactly as in music (that is, the same sound may be used either for a "short" or a "long," according to its varying relations with its neighboring sounds); and it is not limited to the single proportion, 1 to 2, but exists clearly in the further proportions of 1 to 3, 1 to 4, 1 to 5, and so on. That this must be so will perhaps appear more clearly from the following train of thought.

In the first place, it is evident that *some* time must be consumed in uttering each sound of every English word, whether of prose or verse. This being so, the inquiry narrows itself to finding out whether, in uttering more than one sound, the time actually consumed by the first sound bears any such simple relation to the time consumed in uttering the second and succeeding sounds, as that the ear can trace a distinct unit-of-measure through them all, by which all can be measured in terms of small numbers; the ear saying, *This sound is twice that in time, this three times that, this four times that,* and so on.

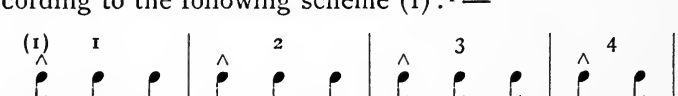
This inquiry is best answered by a practical experiment.

Suppose we write the line,

Rhythmical roundelays, wavering downward.

In order to represent its time-relations, let us resort to the simple and unequivocal system for noting rhythm used in music. Taking a very slow rate of uttering words for clearness, the actual number of rhythmic sounds (not *words*, but separate verse-sounds composing them) uttered in a minute may be here considered to be 180. Dividing this by 60, we have three verse-sounds to the second, or one verse-sound to each third of a second.

Now, if the musical sign ♪ — called an "eighth-note" — be taken to represent a sound whose duration is one-third of a second, or that of one ordinary verse-sound, then the sign ♩ — called a "quarter-note," = 2 ♪'s — will represent a sound whose duration is two-thirds of a second; and two such sounds in succession — that is, an ♪ and a ♩ — would exactly occupy one second. When to these elements we add the musical sign ∧, indicating an increase of intensity, or an accent, on any note over which it may be placed, we have an extremely simple system of notation, with which we may at least begin to note the time-relations of rhythm with accuracy. Postponing a further explanation of the musical system for noting rhythm until further need requires it, let us now recur to the line above written. Every person with the ordinary feeling for rhythm upon seeing such a line would recognize it without hesitation as rhythmic according to the following scheme (1):[1] —



[1] This is, more correctly, a scheme of the *type* of the rhythm. Upon the preservation of such types to the ear through many lines, varying it very widely, comment is presently made.

in which each ♪ — representing a sound of the duration of one-third of a second — is allotted as a sign to each verse-sound which in practice actually occupies about that time.

Now, how could the words of the given line be recognized by every reader as constituting the rhythm described? Why does the reader recognize the first verse-sound, "rhythm," as exactly equal in time to the second verse-sound, "ic;" the second equal to the third, "al;" that to the fourth; and so on, until the tenth sound, "down," is reached, which is recognized as exactly twice as long in time as any one of the others? Why, indeed, should the reader wholly unacquainted with the rhythmical intentions of the writer of the line imagine any simple relations at all between the times of each of these verse-sounds? Why might not complex or utterly vague relations be as easily imagined, so that the first sound, "rhythm," might be (say) $1\frac{93}{97}$ of the second, "ic;" the third, "al," $2\frac{507}{899}$ of the fourth, "round;" the fifth, "e," $\frac{18958}{20001}$ of the sixth, "lays;" and so on?

But, further, why does the reader not only perceive the primary rhythm of this line — that is, the simple relations in time of its verse-sounds, — but also its secondary rhythm, — that is, its grouping into four groups, of which the first three groups have each three sounds equal in time, while the fourth group has but two sounds, which two-group is, nevertheless, collectively equal in time to any one of the other three-groups?

Postponing the answers to these questions for a moment, let us vary the line so as to make the answers cover more ground. Suppose, instead of the line,

Rhythmical roundelays wavering downward,

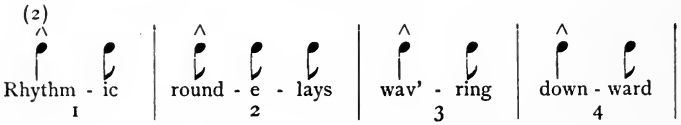
one should write,

Rhythmic roundelays wav'ring downward.

For the sake of comparison let us place these lines in juxtaposition.

Rhythmical	roundelays	wavering	downward.
Rhythmic	roundelays	wav'ring	downward.

Every ordinary reader would recognize in such a line the following rhythmic scheme (2) :—



But here the first verse-sound "rhythm" is recognized by the reader as a ♩, while in the foregoing scheme (1) it was as clearly recognized as ♪; and it does in fact discharge the functions thus indicated in a manner perfectly distinct to every ordinary English ear. Similarly, in the third bar (each of the "groups" of verse-sounds marked 1, 2, 3, 4, corresponds precisely with what is called the "bar" in music; and, as "bar" has an exact technical signification, it will hereafter be used instead of "group") the verse-sound "wav," which in scheme (1) appeared as an ♪, appears now as a ♩. Recurring to the nomenclature of classic quantity for a moment, in order to compare these appearances from that stand-point, and regarding the eighth-note ♪ as a "short," the quarter-note ♩ as a "long," we may now extend our questions, and ask, How is it that the two syllables, "rhythm" and "wav," have managed to convey to the reader that they have shifted their quantity, and that, whereas each appeared as a "short" in

the first line, each now appears as a "long" in the second line? By what signs have the printed words indicated these changes to the reader?

Before pursuing these changes beyond the simple forms just given, it is now time to collect the phenomena which appear from the foregoing analysis, and to answer the questions concerning them. We have found, first, that an ordinary English reader, in coming upon the line,

Rhythmical roundelays wavering downward,

would immediately recognize in it the rhythmic movement noted in the musical scheme No. (1). By what signs is this recognition made?

To this question there can be but one answer: The English habit of uttering words, prose or verse, is to give each sound of each word a duration which is either equal or simply proportionate to the duration of each other sound; and, since these simple proportions enable the ear to make those exact co-ordinations of duration which result in the perception of primary rhythm, we may say that all English word-sounds are primarily rhythmical, and therefore that the signs of those sounds — that is, written or printed words — are in reality also signs of primary rhythm; so that we may say further, Written or printed English words constitute a sort of system of notation for primary rhythm.

But this is not all. We found, secondly, that an ordinary English reader, in coming upon the line,

Rhythmical roundelays wavering downward,

would recognize not only the simple relations in time among the verse-sounds which suggest primary rhythm, but would also recognize a certain grouping of these

sounds which was intended by the writer and which constitutes their secondary rhythm, to wit, the grouping of the eleven syllables into four bars, each bar equal in its time to each other bar, the three first bars containing three ♩'s each, and the fourth bar a ♩ and an ♪, which together equal three ♩'s: by what signs does the reader recognize this grouping into bars?

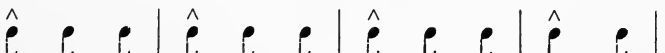
The answer to this question is, The English habit of uttering words is not only to utter them in primary rhythm (see last proposition), but to make a difference of intensity (of loudness or softness, the essential principle of all *rhythmic* "accent"), which renders one sound in each word prominent above every other sound in that word. The particular sound to be thus distinguished is fixed for each word in our language by agreement; so that, in seeing a series of written or printed words, the reader understands which syllable of each word is rendered prominent by the aforesaid difference of intensity. If the series of words reveals the difference of intensity recurring at regular intervals of time, as in this series,

Rhythmical roundelays wavering downward,

where the differences occur four times at intervals of three ♩ sounds each time, then this recurrence divides the series into four bars, and *each separate bar* becomes a unit-of-measure for the *secondary rhythm*, as *each separate sound* is a unit-of-measure for *the primary rhythm;* so that, practically, written or printed English words constitute a system of notation for secondary rhythm. In point of fact, the system of verse is here identical in method with that of music. It is understood in music that the first note in each bar is to be sounded with somewhat more intensity

than any other note in that bar;[1] and every series of musical tones is thus divided into groups or bars for the ear, so that the ear knows the beginning of each bar by the slight increase of intensity (or stress, or "accent") which occurs on the first tone of it. The bar, therefore, in music as in verse, is really a unit-of-measure of secondary rhythm: in one, as in the other, the ear first compares the time of individual sound with sound in order to perceive the primary rhythm, and then compares the time of bar with bar in order to perceive the secondary rhythm.

In accordance with the musical understanding just mentioned, the sign ∧, which is used in music to indicate a special stress upon the note over which it is placed, will not hereafter be used except in cases where a stress is desired upon some note other than the first in each bar. Thus, instead of writing, as in scheme (1),



it is sufficient if we write

without the ∧; every musician understanding that the first note in a bar is to be given with a slight increase of intensity, unless some other note in that bar is marked for the increase. If it were desired, for instance, to indicate groups of threes, which the ear could distinguish by listening for the *second* sound in each group, we would write

[1] Except where specially marked otherwise, as will be hereinafter explained.

or, as will often happen in noting the iambus through the following discussion of special rhythms,

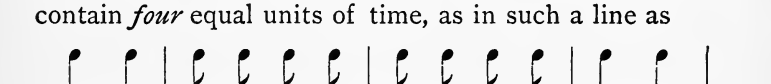
The recurrence of the terms "ordinary persons," "the ordinary English reader," and the like, above, makes it proper to mention at this point, once for all, that there are persons not ordinary to whom these phenomena would not be apparent. It is, in fact, a remarkable circumstance that while the perception of rhythm is perhaps the most widely distributed of all our æsthetic powers, showing itself even among savage tribes in their co-ordination of quite complex rhythmical phenomena (see the general considerations of rhythm, in Chap. VI. following), yet among the most cultivated nations people are not infrequently found who appear to be without the sense of rhythm. Perhaps every officer of experience in drilling military companies will have come upon men who were unable to keep step, and who remained so, in spite of all drill. These and other similar instances show the existence of persons who labor under an inability to apprehend rhythm in any form. This inability appears to be as complete as that of a person born blind to apprehend color. Such persons, however, are sufficiently rare to be considered abnormal, and are so few in comparison with that enormous proportion of the human race which apprehends and delights in rhythm that for the purposes of the present discussion they may be left out of consideration, so far, at least, as to omit the limiting terms "ordinary persons," "the average ear," and so forth in future.

But we have not yet answered all the questions raised by the two lines of verse cited. We found that the line

would suggest to a reader that the quantity of the first verse-sound, "rhythm," was that of an eighth-note; while the line

would suggest to the reader that the very same sound, "rhythm," had the quantity of a quarter-note, that is, was intended to be held twice as long in pronunciation as before. How was this suggestion conveyed to the reader?

By the secondary rhythm, or grouping into bars. The swing, or rhythmic movement, of English words in two syllables, reveals to the ear always the primary rhythm of (where the accent falls on the first syllable), or (where the accent falls on the second syllable); and the ear will always interpret it as such, unless other suggestions are made by the general grouping. If, for example, the grouping was obviously into fours, — that is, if each bar evidently was intended to contain *four* equal units of time, as in such a line as



where the accents upon "round" and "float" occur at the distance of four sounds apart, and thus group the whole into bars of four eighth-notes each, — then the

two sounds "rhythm" and "ic" would be interpreted and uttered by the reader as and ; for the obvious necessities of the secondary rhythm require four eighth-notes , or their equivalent, in each bar; and the equivalent in the case of the two sounds "rhythm" and "ic" would be filled out by making each sound a quarter-note in length.

Thus we see that the quantity or duration of English sounds is variable; further, that, since primary rhythm depends on the relative quantity or duration of sound compared with sound, the primary rhythm of English sounds, while always existent, may vary within the limits of the simple proportions, 1 to 2, 1 to 3, 1 to 4, and so on; and, finally, that the primary rhythm of a doubtful word may be indicated by the secondary rhythm or grouping into bars.

But the ordinary habit of English utterance in current speech, which thus associates primary rhythm with the separate sounds of words, and secondary rhythm with the words composed of these sounds, goes still farther: it associates what we may consistently call a tertiary rhythm with *phrases* composed of separate words. If the conduct of a reader's voice in delivering English prose be closely observed, it will be found that the words are not uttered with uniform breaks of silence between them, but that they are uttered in groups of two, three, four, or more words together, — the attention of the ear being called to each group by making the silence which succeeds it longer than any silence between any two consecutive words of that group: in other words, our prose is marked off into groups for the ear by silences of a certain duration. Since the musical term "rest" means a "silence of a

certain duration," let us — upon the general principle which will be observed in the present system of adopting all possible terms which have already acquired precise technical significance — call these measured silences "rests." We shall find them used as often, and with functions quite as clearly defined, in verse as in music.

The phrase in our printed current prose is often marked off for the eye by the comma, or other mark of punctuation. But this was not always so, even in the older prose of our language; and the modern system of punctuation, which allows very few commas as compared with the older system, leaves the phrasing of a sentence almost entirely to the feeling of the reader.

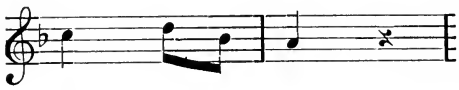
The offices of the phrase in prose are vital to all clear and musical delivery; but, without here entering into them further than to recognize their existence, let us proceed to consider the function of the phrase in verse.

This will appear in an interesting connection by comparing the phrase in verse with the phrase in music.

The phrase in music is a rhythmic grouping of a larger order than the bar, embracing generally more than one bar. The following four phrases constitute the first strain of the wonderful slow movement in Gade's C Minor Symphony. Each phrase, it will be observed, consists of two bars: and just as the bar becomes a sort of larger unit-of-measure, enabling the ear to make measurements of rhythm on a larger scale by comparing bar with bar (group of sounds with group of sounds), instead of individual sound with individual sound, so the phrase, as here exhibited, enables the ear to make rhythmic comparisons of a still larger order than those of the bar by co-ordinating phrase with

phrase, that is, group-of-bars with group-of-bars. For the purpose of illustrating this relation of bar to phrase, the phrases are here written under each other. The reader, if unable to play these phrases, should cause them to be played, on the piano, flute, violin, or any accessible instrument; noticing particularly how the tune of the second phrase forms a sort of replication, or answer, to the tune of the first, and the tune of the fourth phrase to that of the third, thus extending the rhythmic parallelism of the phrases in duration to a further parallelism in pitch. It may augment the interest of this illustration to add that the perfection with which Gade (a Danish composer of our own time) has done all this in the movement cited — the art with which the wonderful simplicity of the melodic movement, though arraying phrase against phrase most unmistakably to the ear, never degenerates into the woodenness and uniformity which is so apt to result from a too distinct phrasing in music — must always distinguish this work, which, on many other accounts, every music-lover is obliged to hold as a heavenly outcome of genius.

First phrase,



Second phrase,

Third phrase,

Fourth phrase.

Now, these four opening phrases are given by the hautboy in the movement cited, and, just as in reading prose the good reader gets a breath at each phrase except at very short ones, so the player on a wind-instrument breathes at the end of each phrase, cutting off a small part of the tone for this purpose if no rest is marked in the music. In the above notation the musical sign "𝄽" at the end of the second and fourth phrases means a rest occupying the same time as a quarter-note, and is called a quarter-rest.

But compare these phrases of Gade's music with the following phrases of Shakspere's verse. In order to array these distinctly against each other to the eye, as they are in practice arrayed against each other to the ear by the device of the rest presently explained, I set them under each other like the Gade phrases. They are from the speech of Horatio, in Act I. sc. 1, of Hamlet. Of course the line-division is ignored here for the sake of the phrase-division.

	PHRASE.
Horatio. — So have I heard, ...	one
and do in part believe it.	two
But look, ...	three
the morn, ...	four
in russet mantle clad, ...	five
Walks o'er the dew of yon high eastern hill. . .	six
Break we our watch up;	seven
and, by my advice, ...	eight
Let us impart what we have seen to-night Unto young Hamlet;	nine
for, upon my life, ...	ten
This spirit, ...	eleven
dumb to us, ...	twelve
will speak to him.	thirteen.

It is immediately noticed here, that instead of the regu-

lar rhythmic antagonism of two-barred phrase against two-barred phrase, which we found in Gade's music, we have an irregular rhythmic antagonism, the first phrase consisting of two bars, the second of three bars, the third of one bar, the sixth of five bars, the ninth of seven bars, and so on.

Here we have types of the different use of phrasing made in verse from that made in music. While the phrases in music are not always so symmetrically opposed to each other as in the illustration from Gade, nor those in verse always so unsymmetrically opposed as in that from Shakspere, it is still a rule that, in general,

The phrase in verse is used to set up a sort of intermediate varying rhythm which agreeably breaks the uniformity of such *un*varying rhythms as that of the bar and of certain yet larger groups hereafter to be explained. Any bar, it will be observed, is always exactly equal to any other bar; and the ear's attention is rigorously called to this equality by the recurrence of the accent always at the same part of the bar. This unvarying symmetry would be likely to grow monotonous, especially when re-enforced by the other symmetries in verse presently detailed, if it were not relieved by these phrase-groups, which are opposed to each other, not in the exact proportion of equality (or 1 to 1), as are the bars, but in proportions varying from 1 to 2, 1 to 3, 1 to 5, 1 to 7, &c., as we saw in the Shakspere illustration.

The agency by which the phrase-grouping is marked off for the ear is the rest, which advises the ear as the punctuation-mark does the eye. We shall find, in the discussion of the Tunes of Verse, Part II., that in reading verse the phrase-division is also marked off for the

ear by some quite characteristic variations in pitch of the voice.

Another kind of grouping, though wholly different from the phrase, must be classed with the phrase as of a third order of rhythmic groups because it is typically larger than the bar-group or second order, and smaller than the line-group or fourth order which is presently to be explained.

This second species of tertiary rhythm is indicated to the ear by a recurrence of the *same tone-color* at the accented tone of two, three, or more bars, and is indicated to the eye, in print or writing, by what is called "alliteration."

For example, in the following first two lines of a very quaint and vigorous poem of Queen Elizabeth's which has been preserved to us by Puttenham, let the reader observe how the first three bars of the first line are grouped together for the ear by the recurrence of the tone-color *f* on the accented tone of each bar; and how, in the second line, two groups of two bars each are marked off for the ear, one by the recurrence of *w*, and the other by the recurrence of *s*.

"The *f*ear of *f*uture *f*oes exiles my present joy,
And *w*it me *w*arns to *s*hun such *s*nares as threaten mine annoy."[1]

It is immediately seen that the *f*, *f*, *f*, in "The *f*ear of *f*uture *f*oes," the *w*, *w*, in "And *w*it me *w*arns," and the *s*, *s*, in "to *s*hun such *s*nares," call the ear's attention respectively to a group of three bars, a group of two bars, and another group of two bars, and that this grouping is, like that of the phrase, less symmetrical

[1] The use of "annoy" as a noun, in the sense of modern "annoyance," was common in the sixteenth century, though it has now passed away.

than that of bar to bar. In point of fact, both these species of tertiary rhythm, the phrase and the alliterative group, are rhythmically used to relieve the stiffness arising from the monotony of the more symmetrical groups like the bar and the line.

The agency used to mark off the alliterative group is always the recurrence of a given tone-color on some special tone of the bar, usually the accented tone.

It is interesting to note the very different use of alliterative grouping made by modern English poets from that made of it by the earlier poets. In Anglo-Saxon poetry it is used, not at all as an irregular relief from rhythms otherwise established, but as a powerful re-enforcement of the main or secondary rhythm, and, in this capacity, as a striking determinant of the otherwise doubtful primary rhythms of the sounds. A concrete review of the abstract principles now being developed will presently be given, in which this generous function of alliteration in the earliest poetry of our language will be illustrated. Besides this, the subject will be found further discussed, under the head of the Colors of Verse, in Part III., where alliteration is treated specially, not as the mere rhythmic agency which gives it a place in the present discussion of rhythm, but as an independent means of pleasure to the ear on its own account as a co-ordination of tone-color.

Another species of tertiary rhythm remains to be mentioned, belonging to this class because its grouping is larger than that of the bar and not so large as that of the line. This is the grouping which arises from the English habit of placing a special stress of voice on important words, or, more strictly, on the important sound of important words, in a sentence. Such stress, or em-

phasis, if closely examined, is found usually to consist not only of an increase in the intensity, but also of a change in the pitch, of the voice. If the conduct of the voice in uttering the first line of Horatio's speech above-cited, for example, be closely watched, it will be found that on certain sounds — varying with differing readers, to some extent — a reader will not only make a stress somewhat heavier in intensity than that of the verse-accent already described as marking each bar-group, but will slightly sharpen the pitch of the voice: thus,

'*So* have I *heard*, and *do* in *part* be*lieve* it."

This accent, consisting *both* of an increase of intensity and a change in pitch (generally a heightening or sharpening of pitch, but, observe, by no means always), is a characteristic means in English speech for indicating words which strike the speaker as important, or to which the speaker wishes to call a hearer's special attention. The function of such intensity-and-pitch accent appears very clearly in all antithetical propositions; and, if the reader once catches the exact movement of the voice in the comparatively exaggerated use of this accent for such a purpose, he will be able to trace it easily in those less striking uses of it where it is employed, not for a direct and complete antithesis, but for the indirect and incomplete antithesis implied in merely singling out a comparatively important word from among comparatively unimportant ones. For this purpose, notice the movement of the voice — it is really part of a *tune* of the voice, commonly employed for this purpose, and universally recognized — in enforcing the antithesis between "dumb" and "speak" in

the last part of Horatio's speech above-cited, as well as the antithesis between "us" and "him."

> "For, upon my life,
> This spirit, *dumb* to *us*, will *speak* to *him*."

We are here brought to make a distinction of the gravest importance between the *rhythmic* accent (or slight increase in intensity alone, which is of universal use in all music and in English verse to mark off the sounds into the groups called bars) and the *logical* accent, which is used to make the above words, "dumb," "speak," "us," and "him," more prominent than the other words in the sentence. Let the reader carefully discriminate: —

(1) that the rhythmic accent consists of increased intensity alone, while the logical accent consists of this and the change in pitch beside;

(2) that the rhythmic accent is the mark of a bar in all music and in all English verse, while the logical accent has no necessary connection with the bar;

(3) that the rhythmic accent is of absolutely regular recurrence, so regular that the musical system of notation always considers it a matter of course as occurring on the first note of each bar and does not mark it save where, as in rare cases for some special effect of *interrupting* the rhythm, the musician desires to accent some note other than the first in the bar, even in which event the rhythmic accent is still indispensable and only transferred from the first note to some other, — while the logical accent is of *irregular* recurrence, depending upon the number of relatively important words in the phrase or sentence;

(4) that, as a corollary from the last circumstance,

the logical accent will scarcely ever be given exactly the same place by two consecutive readers, because the relative importance of any particular idea to several other ideas will strike different minds differently according to a great number of circumstances — mental constitution, previous training, mood of the moment — and will even be often simulated unintentionally where it is not felt, through vague and careless habits of reading acquired in childhood, — while the rhythmical accent would be placed upon exactly the same point of each bar by any ten thousand readers of either a piece of music or a piece of verse;

(5) that, as may be anticipated from the preceding remark, the effect of the rhythmic accent is to establish a definite rhythm for the ear, while that of the logical accent is to *dis*establish this rhythm by differently timed recurrences which set up different groupings of two, three, or more bars.

Let it be further observed that the logical accent nearly always falls upon a sound already distinguished by the rhythmic accent and thus re-enforces the latter.

The distinction between these two species of accent has been dwelt upon with particularity because the failure to observe it has caused a number of mischievous errors in several otherwise authoritative modern treatises upon the versification of Chaucer and of Shakspere. These are pointed out in the special treatment of this subject following.

After the foregoing brief preliminary outline of the three species of tertiary rhythm, we may now advance to the next larger grouping of bars usually called the Line, which, as being a process strictly in extension of those hitherto detailed as primary, secondary, and ter-

tiary, rhythm, we may consistently classify as a fourth order of rhythm. The term "Metre" has in process of time come to be very generally used in this same sense, as denoting the number (Metron, *measure*) of verse-sounds in a line, giving rise in hymnology to such expressions as "long metre," "short metre," and the like. As the first order of rhythm is marked off for the ear by duration of sound-compared-with-sound; the second order by the rhythmic accent, marking bar-compared-with-bar; and the third order by the phrase-rest, (1st species) the alliterative tone-color (2nd species) and the logical accent (3rd species); so the fourth order of rhythm, the line-group or metre, is marked off for the ear by either the rest — as in blank verse — or the rhyme; and both of these are usually re-enforced by a characteristic change in the pitch of the voice.

Use of the rest in marking off the line-group in blank verse. In the lines,

(1) But look, the morn, in russet mantle clad,
(2) Walks o'er the dew of yon high eastern hill,

a rest is made after "clad" which calls the attention of the ear to the group of bars (1) embraced by "But" and "clad" inclusive; a similar rest is made after "hill" in the next line, which calls the attention to the group of bars (2) embraced by "Walks" and "hill" inclusive. Thus the ear is able to compare these two fourth-order groups, (1) and (2), and to draw its peculiar pleasure from finding their rhythmic equality emerging above all the varied phenomena of lesser rhythms, of tune, and of tone-color, which they present.

In this connection, where our development has now reached a stage of some complexity, it will be useful to

mention that if the reader should be surprised at being told that the ear in hearing verse (or the imagination of the ear, in reading or conceiving verse) actually makes, and draws pleasure from, all these varied co-ordinations upon which the groupings already described depend, that surprise will vanish when it is found that these groupings, numerous as they seem, form but a small proportion of the items actually apprehended and co-ordinated by the ear of every ordinary person — items which embrace not only the phenomena of duration now under discussion, but many widely-differing phenomena of pitch manifesting themselves as delicately-shaded tunes, and phenomena of tone-color manifesting themselves in the complex forms enumerated under that head in Part III. The hourly habit of making all, or most of, these co-ordinations, involved in the most commonplace uses of language, is apt to blind us to the truly wonderful powers of the ear in these particulars until our attention is specially called to them.

But, to return to the line-group as marked off by the rest: the reader is asked to observe particularly that a large number of sound-groups printed as lines in blank verse are really not lines *to the ear* at all and are deceptive if estimated as such in theories of the versification of special writers. For example: in the speech of Horatio cited, the group

Let us impart what we have seen to-night

though printed as a line to the eye is really no group to the ear; the close connection of the sense at the end of this line with the beginning of the next line prevents any such rest after the sound "night" as would

mark-off the line for the ear, and the actual grouping is not made until the ear feels the rest which occurs after the word "Hamlet" in the next line. The real rhythmic group here, then, is

Let us impart what we have seen to-night unto young Hamlet.

Such a group would be the following from *The Tempest:*

> Had I been any god of power, I would
> Have sunk the sea within the earth, . . .

where the phrase "I would have sunk" demands such a continuous pronunciation as forbids any rest after "would," so that the actual line-group for the ear is

Had I been any god of power I would have sunk the sea within the earth;

or, again, a line ending in a preposition immediately connected with its noun at the beginning of the next line, like

> Master of this design) did give us: with
> Rich garments, linens, stuffs, and necessaries,

where "with" runs the voice on to its noun "garments" so as to preclude the line-group rest.

Such incomplete groups have acquired the special name of "run-on" lines, in distinction from those complete groups which from their being marked-off by a stop or rest at the end are called "end-stopped" lines. This distinction has acquired great importance in modern Shakspere criticism. It has been found that in his earlier works Shakspere used the end-stopped line almost exclusively, while in his later works he used a much greater proportion of run-on lines; and this progress from the stiff versification of the inexorably

end-stopped line to the freer and richer rhythms of the run-on line would seem to be clearly an accompaniment of a parallel growth in Shakspere's whole nature from the limited views of his earlier manhood to the wise and large freedom of his maturity.

Inasmuch as these are matters which we can count: inasmuch as we can discover exactly the numerical proportion of run-on lines to the whole number of lines in an early play like *Love's Labor's Lost*, and can then compare this proportion to that of such lines in a late play like *The Tempest;* it will be seen that this change in the line-group constitutes a delicate and precise indication of Shakspere's growth as an artist and thence of his growth as a man.

It cannot escape notice, however, that the free use of the run-on line in Shakspere's later plays is really an escape from metre. Allowing "metre" to mean, as in hymnology, the line-group, all metrical verse in English implies a succession of lines which are either equal to each other or proportionate in a simple and regularly-recurrent way. Thus blank verse is, in type, a succession of lines each having five bars, and each therefore exactly equal to each in duration; while in irregular rhymed compositions the lines may often be unequal, but the shorter or longer line usually recurs in the same position and thus notifies the ear of the regularly-recurrent proportion. This is the case except in the ode: and we must therefore class Shakspere's later verse, as odes should be classed, among that noble and free species of verse which is really a prose throughout which some secondary rhythm (iambic, trochaic or the like) is consistently carried. All English prose is rhythmic so far as the primary rhythm of sound com-

pared with sound is concerned, and so far as the grouping of sounds into words is concerned: but one word may be a trochee, the next an iambus, the next a dactyl, and so on, and this inequality in the successive bars destroys the secondary rhythm which is dependent upon the absolute equality in the time-contents of any bar compared with any other bar. When this equality is maintained, — that is, when the secondary rhythm selected (whether that of the iambus, the trochee, the dactyl &c.) is carried on throughout the piece, — then we have a true rhythmic prose such as is presented by the ode, and by the blank verse of Shakspere's later plays: it is only when the bars of this secondary rhythm are further grouped, upon some regular system, — either of equality, line for line, or of shorter line regularly alternating with longer line, — that the ear is able to make those exact co-ordinations of line with line which should be called fourth-order rhythm or metre.

But reserving further detail of this matter until its special discussion, let us now consider the other method mentioned, — of indicating the line-group, or fourth-order rhythm, by the recurrence of rhyme at the end of the line.

For example: in

> For as the sun is daily new and old,
> So is my love, still telling what is told,

the recurrence of the compound tone-color "old" calls the attention of the ear to the end of each of the lines, and thus groups together for the ear all the sounds in each line, enabling it to make rhythmic comparison of line with line.

The group marked-off by the rhyme, though in most cases the line-group, is of course not necessarily so, and may be either smaller or larger. For examples of smaller groups: in

> And the silken sad uncertain rustling of each purple curtain
> Thrilled me, filled me with fantastic terrors never felt before

the recurrent tone-color, "-ertain" "-urtain" marks off the first line into two half-lines, while the "illed," "illed," of "thrilled," "filled," marks off only the two first bars of the second line into an agreeable sporadic group.

For example of larger group than the line marked off by rhyme or recurrent tone-color: in

> That time of year thou may'st in me behold,
> When yellow leaves, or none, or few, do hang
> Upon those boughs which shake against the cold,
> Bare ruin'd choirs, where late the sweet birds sang,

the tone-color "-old" at the end of the first line does not recur until the end of the third, while the tone-color "-ang" at the end of the second line does not recur until the end of the fourth, and the effect is to set up a grouping for the ear of two lines against two lines. It is evident that an analogous process could be used to group lines by threes, or fours, though of course if a rhyme recur at a much greater distance than this the effect is lost, by the ear's forgetting the corresponding tone-color in the multitude of intervening tone-colors.

As in the case of the alliterative group before described: this purely rhythmical function of rhyme must be clearly discriminated from the independent function of rhyme as a pleasurable co-ordination of tone-colors for their own sake. Of the two functions, the rhythmic

would seem to be the most worthy, and probably any future development of rhyme in our language should be along this direction — of marking-off new sets of rhythmic groups either metrically, that is, regularly, or unmetrically, that is, for an agreeable variation of monotonous rhythm.

A method of indicating the line-group to the ear by a certain intonation of the voice somewhat like that used in the intoned service of the Roman Catholic church to denote the occurrence of the comma is often adopted by readers; but it is not general enough to merit more than this brief mention here, as a possible means of marking-off the line-group by recurrent variations in pitch.

A fifth order of groups is included in the Stanza.

For example. In Ophelia's song,

How should I your true love know
From another one?
By his cockle hat and staff,
And his sandal shoon,

is a group of four line-groups, marked off by a distinct rest from the next similar group,

He is dead and gone, lady,
He is dead and gone;
At his head a grass-green turf,
At his heels a stone.

These two groups being always of four lines each can thus be compared by the ear, stanza with stanza; and their size — larger than the line and smaller than the poem — suggests their classification as a fifth order of rhythm.

And thus finally we reach the sixth and last order

of rhythmic groups, which consists of a group of the stanza-groups varying from a single four-lined stanza, or from the fourteen-lined stanza of the sonnet, to scores and hundreds of stanzas, and which, embracing all the rhythmic contents of any complete composition in verse, is called the Poem.

The foregoing outline of the progressive series of rhythmic groups into which the ear co-ordinates the whole body of verse-sounds presented to it by a formal poem has been purposely made as abstract as possible, in order that the whole process of rhythmic co-ordination might be presented in a continuous view, uninterrupted by practical illustrations except where these seemed necessary to the explanation of particular steps.

This view has now revealed to us that the sounds of English verse suggest to the ear six methods by which they can be compared as to their relative duration, sound with sound, or group-of-sounds with group-of-sounds; and that these suggestions are conveyed by certain recurrent relations of duration, or of intensity, or of pitch, or of tone-color; the varying effects of which, as just detailed, combine to exhibit to the ear,

(1) The relative duration of each primary unit or individual verse-sound ("syllable") constituting what may be scientifically termed the first order of rhythm and what is commonly termed . . . . . QUANTITY.

(2) The relative duration of each secondary unit, or individual group of verse-sounds (the bar, sometimes also called "measure," same as the classic "foot"), constituting what may be scientifically termed the second order of rhythm and what is commonly termed . . . . . RHYTHM.

(3) The relative duration of each tertiary unit, or larger individual group of verse-sounds (the "phrase"),

constituting what may be scientifically termed the third order of rhythm, which divides into . . THE PHRASE, THE ALLITERATIVE GROUP, AND THE EMPHATIC WORD GROUP.

(4) The relative duration of each fourth-order unit, or still larger group of verse-sounds, (the "line"), constituting what may be scientifically termed the fourth order of rhythm and what is commonly termed . . . . . METRE.

(5) The relative duration of each fifth-order unit, or still larger group of verse-sounds (the "stanza") constituting what may be scientifically termed the fifth order of rhythm and what is commonly termed in English the verse or more correctly the . . . . . STANZA.

(6) The final rhythmic group embracing all these and called . . . . . THE POEM.

Inasmuch as these six orders of grouping embrace all the phenomena of rhythm in English verse, they afford us convenient divisions for an exhaustive discussion of that subject. To this the next six chapters will be devoted.

CHAPTER III.

SPECIAL DISCUSSION OF THE RELATIVE DURATION, OR QUANTITY, OF ENGLISH VERSE-SOUNDS, AS CONSTITUTING PRIMARY RHYTHM.

So much was necessary to be said upon this subject by way of anticipation that the special treatment in the present chapter may confine itself to the following four points:

(1) to showing that, since rhythm always depends necessarily upon quantity, those who deny the existence of quantity in English sounds must deny the possibility of rhythm in English verse;

(2) to setting forth a complete system of notation adequate to express with precision all the possible rhythmic relations of English verse-sounds;

(3) to illustrating how printed or written English words constitute a system of notation for rhythm, precise as to the larger orders of rhythm, but susceptible of varying interpretations as to primary rhythm, to the extent of minute differences of utterance which do not affect the essential proportions of the bar;

(4) to showing how the liberty of arranging at pleasure the individual time-relations (or primary rhythm) of the constituent sounds in any bar, so long as the normal time-value of the bar is preserved, is availed of by poets to make their rhythms melodious, varied, and characteristic.

The demonstration heretofore given of the neces-

sary dependence of rhythm upon quantity may now be specially applied as against the opinion that in English verse it is accent, and not quantity, which is the basis of rhythm. This opinion has prevailed among some recent scholars of the greatest eminence who, engaged in researches not directly turning upon any minute investigation of the true nature of rhythm, have evidently adopted without examination an idea which appears to have obtained great currency under the authority of Coleridge. For example, Mr. Alexander J. Ellis, whose name no English student can mention without a new sense of grateful obligation for the wonderful skill with which he has renewed in our ears the actual living tones of the daily speech of our forefathers, remarks (in his *Early English Pronunciation*,[1] Part I., p. 334, note 1): "The length of syllables"—meaning English syllables—"has much to do with the force and character of a verse, but does not form part of its rhythmical laws." Again, Mr. E. A. Abbot, in *A Shakespearian Grammar*,[2] p. 332, note, explains that "the words 'trochaic' and 'iambic' are of course used, when applied to English poetry, to denote *accent*, not quantity." So in the essay on Alliterative Metre by Mr. E. E. Hale it is remarked: "whilst it is pretty clear that it" (English prosody) "is based on . . . an accentual . . . not on a temporal system, &c."[3]

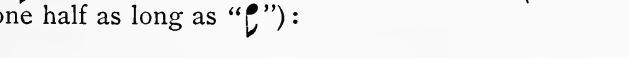
This misconception has arisen out of the failure to discriminate primary rhythm from secondary rhythm. We have seen how the rhythmical accent is used both in music and in verse to lay-off a series of sounds into

[1] Chaucer Society Edition. [2] Macmillan & Co., London, 1871.

[3] Printed in Hale's and Furnivall's edition of Bishop Percy's Manuscript.

the well-known groups called "bars" or "measures" in music and "feet" in classic prosody. But we have also seen that this is by no means a creation of rhythm, but is merely an arrangement of pre-existing rhythms which exist in virtue of the simple time-relations between the units of sound. It is easy to ascertain by practical experiment that unless these simple time-relations do pre-exist, no grouping by accents can give any rhythmical character whatever to the series of sounds. The experiment may be made still more conclusive by showing that even where simple time-relations exist among the constituent sounds, unless these follow each other in such an order that the sum of the times included between any two accents is exactly equal to the sum of the times included between any other two accents, no rhythmization can possibly be effected by accents. As a simple form of such an experiment, take the following.

Remembering that each verse-sound must necessarily occupy *some* time, and that any two consecutive verse-sounds must therefore necessarily possess *some* time-relation to each other; let us suppose a series of twelve verse-sounds whose relations in time are as follows ("𝅗𝅥" representing a sound half as long as "♩," and "𝅘𝅥𝅯" one half as long as "𝅗𝅥"):



Any effort to group these sounds into rhythm by accents will prove utterly futile. If for instance we mark them off into bars or feet consisting of two sounds each by placing an accent over the first note of each bar, the series would be:

Here are six bars, or feet, so far as accent can make them so: each bar consists of exactly the same number of sounds: but there is no rhythm. Although the accent recurs regularly upon every second sound, rhythm is wholly absent. It is easy to see that this absence is due to the fact that although the accent recurs regularly as to the *number of the sounds*, it does not recur regularly as to *time;* and that this latter sort of recurrence can only be secured by making the time-contents of every bar exactly equal.

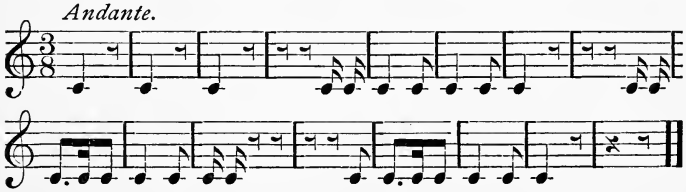
It cannot be necessary to carry this experiment, here, into the farther trials of dividing up the given verse-sounds into groups of three sounds each, or of four sounds each, &c., by placing an accent on every third sound, or every fourth sound, &c.

It will, however, be profitable to consider this experiment in its bearing upon music. The above notes are intended to represent the relative times of words in a line of verse. But suppose them to represent musical tones: let any one, in considering this experiment, reflect how vain would be the effort to set-up any rhythm in music by using accents at every two, three, or other number of tones without reference to the time-value of those tones. The result of such an effort may be actually heard by striking on the piano the notes above given with an accent on every second, third, or other, tone. It is without rhythm.

But perhaps the most conclusive method of settling this question is to present an experiment in which — as constantly happens in all beautiful verse — the rhythm

is absolutely dependent upon measured silences, or rests, instead of measured sounds. Of course, since we cannot pronounce silences, nor distinguish one silence from another silence by an accent, it must be immediately seen that all possible rhythmic function of silence depends upon its duration, the only method of distinguishing one silence from another silence being to note their relative *time.* In short, what we call a rest, in music and in verse, is practically nothing more than the time elapsing between two sounds. Since, therefore, accent can indicate only a certain *number* of sounds without reference to their time-value, and cannot indicate silences at all: if the rhythm of Tennyson's verse given below is clearly dependent upon silences, it must be as clearly *in*dependent of accents.

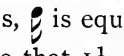
To show that it is dependent upon silences: let the following rhythmic scheme be played on the piano.



Upon hearing this strain, every ear will accept it as a substantial reproduction [1] of the rhythmic movement of the voice in reciting the following stanza:

[1] It is an *exact* reproduction of the type: and the term "substantial" is used merely to hint at those minor individual habits of pronunciation which might make the first note representing "Break" (for example) an instead of the here assigned to it, but which in no way affect the relation of bar to bar, or the general type of the rhythm: see the end of this chapter.

Break, break, break,
On thy cold gray stones, O sea:
And I would that my tongue could utter
The thoughts that arise in me.

But, examining the noted scheme, it is seen that in the first line one-third of the time of the three opening bars, and two-thirds of the time of the fourth bar, is silence: for the sign 𝄽 indicates a silence of the length of an 𝅘𝅥𝅯 and the musical mark $\frac{3}{8}$ at the beginning is only a short way of saying that the series of sounds is to be grouped into threes, and that every bar is to have the time-value of three eighth-notes (𝅘𝅥𝅯's), though, of course, this time-value may be made-up by any combination of sounds whose sum amounts to three 𝅘𝅥𝅯's (as a 𝅘𝅥 and an 𝅘𝅥𝅯; or 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯; or as  , where 𝅘𝅥𝅯· with the dot is equal to 1½ 𝅘𝅥𝅯's, 𝅘𝅥𝅯 is equal to ½ an 𝅘𝅥, and 𝅘𝅥𝅯 is equal to 1 eighth-note, so that 1½ + ½ + 1 = 3 𝅘𝅥𝅯's or eighth-notes) or by any combination of sounds and silences, or of silences alone, occupying the time of 3 𝅘𝅥𝅯's. In short, inspection of the scheme reveals that more than one-third of the first line, and quite one-third of each of the remaining three lines, are made up entirely of silences. Now these silences, or rests, are of differing time-relations among themselves. Of course no application of *accent* could distinguish a quarter-rest from an eighth-rest or three quarter-rests; nor could accent even indicate the existence of a single one of the rests in this poem. On the other hand, if accent were abolished: if the above notes were struck by a machine incapable of varying the strength of its stroke — that is, incapable of stress or rhythmic accent, or upon a drum incapable of variation in pitch — that is,

incapable of logical accent: the result would still be accepted by every ear as unequivocally and pleasingly rhythmical by virtue of the clearly-co-ordinable time-relations of the sounds and silences involved.

The true relation of accent to rhythm in verse will be found illustrated in the next chapter. The reader will always keep the mind clear upon this matter by remembering:

(1) that no one has ever thought of referring rhythm in *music* to any other principle than the exact time-relations among its sounds and silences;

(2) that rhythm in *verse* is precisely the same as rhythm in music, the sole difference being that one is suggested to the ear by speech-sounds, the other by music-sounds;

(3) that the office of accent cannot begin until after rhythm is established; when accent may be used to suggest various secondary arrangements of the primary rhythmic material into groups or bars: but that this office is still absolutely dependent upon time or duration, the sole use of the accent (even in arranging rhythmic material) being that it recurs at stated periods of time. Let the idea of the rhythmic accent be inseparably associated with that of the bar. Neither the bar nor the accent is essential to rhythm. In point of fact the division into bars seems to be comparatively a late refinement in music, while it is also at least doubtful whether this division in classic verse (there called "feet") was ever marked-off by means of accent.

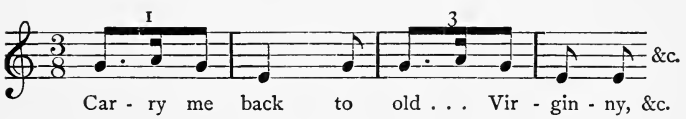
Since the time-relations of verse-sounds do not differ from the time-relations of music-sounds, the system of noting time-relations which serves for the rhythms of music will also serve for the rhythms of verse. This system is as follows.

The sign 𝅝, called a "whole note," stands for a sound whose duration is fixed for every given strain by special directions at the beginning of that strain. This duration, when fixed, of course fixes the duration of all the other notes of that strain, which are always aliquot parts of the whole note. For precisely fixing the duration of the whole note in modern music, such signs as "♩ = 76," and the like, are used: in which the reference is to the mark 76 on a metronome. If the index of the metronome — which may be simply described as a graduated pendulum, kept in motion by a spring which is wound up as occasion requires — be placed, in accordance with such a sign, at the figure 76, then the measured tick of the instrument will give the exact rate of time intended by the composer.

But the habits and traditions of music have established a series of signs for this standard duration which refer to rates of measurement that can be carried in the memory from day to day. These signs are the words *Presto*, *Allegro*, *Moderato*, *Andante*, *Adagio*, and the like, one of which may always be seen at the head of a given strain. *Presto* means *very fast: Allegro* is *brisk and lively; Moderato* is *relatively moderate* in time; *Andante*, slower than *Moderato; Adagio*, slower than *Andante*. The musician early learns to associate a certain rate of time for the whole note with each of these marks; and, by constant habit, carries this rate in his memory, to such a degree that if a hundred or a thousand good musicians be asked in succession to play a certain *Allegro*, or *Adagio*, or other movement, their conceptions of the time will be found to vary but little from each other.

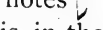
Applying this principle to the notation for verse-

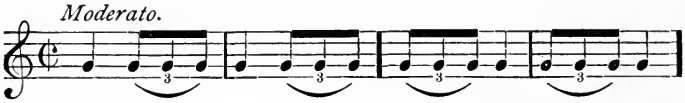
movements: the sign represents a tone half as long as that represented by the whole tone, and is called the "half-note;" is the quarter-note; the eighth-note; and the sixteenth-note; beyond which the needs of verse scarcely extend, though music employs sixty-fourths and even one hundred-and-twenty-eighths. A dot affixed to a note adds half its time-value to it: as is equal to ; to ; and so on. We shall find great use for this dot in noting verse-rhythm, to represent the very common primary rhythm indicated by in English utterance, exemplified in the ninth and eleventh bars of the scheme of "Break, break, break," given above. This sequence occurs so frequently that the reader, if not familiar with it, should get some one to strike it on a piano-key. The knack of it comes to any ordinary ear almost immediately. Perhaps it will be suggested to many by recalling the first and third bars of the familiar negro-melody:

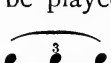
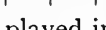
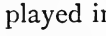


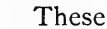
in which, setting aside the change of pitch, the rhythm is .

The rhythmical form , so common in music, is equally so in verse, and many habits of great poets which have caused the widest discussion among commentators are nothing more than the employment of this sequence, which can be made to vary the iterant

rhythm of a long poem like one of Shakspere's plays in a charming way. is called a "triole," and means that the three notes are to be played in the time of  , that is, in the time of one quarter-note. The rhythmic knack of doing this is caught with the greatest ease by nearly all persons; and the reader, if he has it not already, should get any musical friend to play for him on any key of the piano the following sequences:



Any other notes may be formed into a triole: for example means that the three notes are to be played in the time of two 's, or of one ; so  would mean that the three 's were to be played in the time of two  's, or one  .

These are all the signs of primary rhythm which will be needful to express those phenomena as suggested by verse-sounds, when we add the signs for rests, *viz.*:  , and so on, the longer rests not being here important.

We have seen that written or printed English words themselves constitute a system of notation for primary rhythm, in consequence of the English habit of rhythmic pronunciation, which results in associating some sort of definite time-relation in our mind with each word as it is acquired, so that the time-relation occurs to

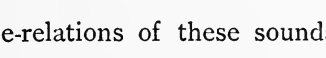
us when we see the word in print or writing. This system of notation is clearly sufficient for all ordinary types of rhythm: the poet sends out his poem in full confidence that the printed words themselves will be sufficient to suggest the intended rhythm to every reader. This being so, it may be asked what necessity for the musical system of notation in the science of verse? The answer to this question lies in the development of the third subdivision mentioned in the beginning of this chapter.

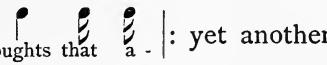
While the general rhythmus of each word of more than one syllable and of each phrase of more than one sound is clearly maintained in ordinary English utterance, the precise relations of consecutive sounds may vary, with various individuals, within certain narrow limits which do not affect the essential proportions. For example: in the first line of the scheme of "Break, break, break" given above, a ♩ is assigned to each of the sounds "Break, break, break." This would represent a sort of long and chanting utterance of the sound. But there are many who use a quicker method of utterance and who would not dwell upon this sound longer than an ♪. In such case the first line of the scheme, instead of representing each of these sounds by a ♩ should represent it by an ♪ and complete the rhythmic proportion of the bar by adding another rest 𝄽, thus replacing the ♩ with an ♪ and an 𝄽 which are together exactly equal to the ♩ in time-value.

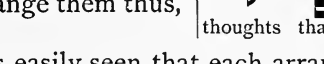
The reader should observe this substitution of a sound-plus-a-silence (or rest) with the utmost clearness of conception: for it is a process of universal application among English speakers, and it accounts for the fact — which has been unaccountable to many persons — of

the perfect preservation of the essential proportions of a given rhythm through all the infinite varieties of individual utterance. A hundred readers may read the "Break, break, break" in succession, and no two of them may pronounce every sound with the same primary rhythmic relation to its neighbor-sound; yet, by the unerring rhythmic instinct of the ear, every variation is so arranged that, if a sound be shortened, a compensatory silence between it and the next sound will be correspondingly lengthened, — as in the case just cited where the sound *Break* was shortened from a ♩ to an ♪, and the essential proportion of the bar was nevertheless maintained intact by adding an 𝄾 to the ♪ and so keeping up the time of a ♩. The reader must therefore not mistake this illustration for a mere formality, but must look upon it as an exact reproduction, in visible notes, of the actual behavior of the voice guided by a rhythmic instinct which always arranges the constituent sounds and silences in each bar so that their individual time-values, when added, will fill out exactly the typical time-value of the bar. In the case just cited the "typical time-value" of each bar is three ♪'s: and we have just seen how, instead of arranging the constituent sounds and silences of the first bar (for instance) as | ♩ 𝄾 / Break | in the manner of a person with a chanting habit of utterance, a reader of short, sharp, and decisive habit of utterance would arrange the sounds and silences as | ♪ 𝄾 𝄾 / Break |, the bar, in either case, amounting to three ♪'s in time, and thus preserving its relation as bar to every other bar in the poem.

The instance given is of the simplest form. Another from the same scheme will illustrate the principle in a different shape. In the 13th bar of the scheme of "Break, break, break" the sounds "thoughts that a-" are noted as

. This notation is exact for a certain swing of utterance which is quite common: but another more decided habit of utterance might make the time-relations of these sounds thus 

still another, more jerky, habit might deliver them thus, 

: yet another, still more jerky, might arrange them thus, 

: and so on; though it is easily seen that each arrangement rigidly maintains the time-value of the *bar*, the sum of the time-values in each case always amounting to the time-value of three 𝅗𝅥's.

The reader should carefully add the time-values in each of these variant bars, and verify them as always equalling three 𝅗𝅥's. They show that in arranging the time-relations of sounds to suit a special habit of utterance the reader not only uses silences to fill out the needed time of shortened sounds — as in the Break, break, break, bars — but distributes the suitable time to each of the sounds when there is no silence or rest in the bar.

But this principle — of arranging the primary rhythm of the individual sounds in a bar at pleasure so long as the typic time-value of the bar is preserved — not only shows how the equality of bar with bar is main-

tained in spite of the widest differences in individual utterance, but it affords us clear explanations of many individual habits of versification among poets which have been interpreted in a most confused and unsatisfactory manner by commentators, through the failure to refer them to precisely parallel processes which are of the most commonplace practical use among musical composers. In citing a few illustrations of this matter — which will be practically extended in another connection, presently — it is necessary to recall what was said of the function of the rhythmic accent above. When a poet puts forth his verse in print, he indicates the manner of grouping the verse-sounds for secondary rhythm by arranging words whose accent is known in such a manner that the ordinary pronunciation-accent falls where the rhythmic accent is intended to fall. For example if the poet wishes the rhythmic accent to fall upon the first sound, and upon every third sound after, so as to group the whole series into threes — that is, into bars of three sounds each — he may indicate such a grouping by beginning with a couple of three-syllabled words whose pronunciation-accent falls on the first syllable, thus initiating the type of the rhythm which the reader is intended to carry on through the poem : as, for example,

Wístfully	wándering	óver the	wáters, she
1 2 3	1 2 3	1 2 3	1 2 3
Sought for the	land of the	blessed.	
1 2 3			

where the pronunciation-accent on the first syllable of "wándering," recurring at the third sound after its first appearance on the sound "Wist-" of "Wistfully," initiates the type of the rhythm, advising the reader

that the whole series is to be grouped into bars of three sounds each, by placing a rhythmic accent on the first sound and on every third sound after.

With so much of explanation as to the function of the rhythmic accent and the poet's means of indicating its places in the sound-series, we are now prepared to see that just as different reciters of verse can deliver the individual sounds in any bar with different time-relations so long as the normal time-value of the bar is not disturbed, so the poet, after having clearly indicated (as in the last illustration) this normal time-value of each bar, may then go on to vary the individual time-values of the constituent sounds in any given bar at pleasure. It will contribute greatly to the reader's full appreciation of what follows in this connection to recall the absolute liberty with which this is done in music. In a given passage, it is the exception if any two bars present exactly the same distribution of time-values among their constituent sounds, though the sum of the time-values in any bar is always exactly equal to the sum of the time-values in any other bar of that strain, — unless of course the normal time-value is announced as changed. When the poet selects the two words

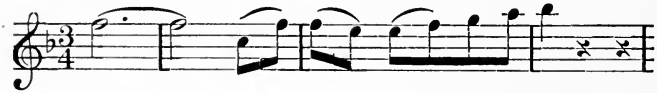
Wístfully | wándering |

to begin his verse, he does exactly what the musician does in writing the figures $\frac{3}{8}$ at the beginning of his strain, thus : both announce to the reader (of the poem or of the music) that the normal time-value of each bar in that strain (of music or of verse) is to be

three eighth-notes, with the first of each three accented. The poet makes this announcement by presenting two words

wíst-ful-ly | wánd-er-ing |
1 2 3 | 1 2 3 |

each of which contains three sounds whose relative time-value is that of three 𝅘𝅥𝅯's, and whose ordinary pronunciation requires an accent on the first sound of each. The musician makes the same announcement by the figures $\frac{3}{8}$, the 3 meaning always the *number*, and the 8 the *time-value*, of the notes in each bar, and the universal rule being in music to accent the first note of each bar unless otherwise marked. But, as just said, the musician having made this initial announcement of the normal time-value and accentuation of each bar, considers himself at absolute freedom to put as many or as few tones into any bar as he likes, so long as he distributes the time-values of those tones in such a manner that their sum amounts to the normal time-value set for each bar. For example, the melody of the opening phrase in Beethoven's Eighth Symphony is as follows :



and noting the rhythm of this strain without reference to the changes of pitch — by placing all the notes on one line — we have

where each bar is different in the number of notes and in the distribution of their time-values from each other

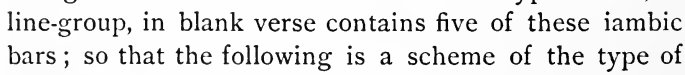
bar, and yet exactly equal to each other bar in normal time-value, each containing the equivalent of $\frac{3}{4}$ or three quarter-notes. And this is a simple instance: numbers of musical compositions will present bars of greatly wider divergence in internal constitution than the above.

This being so, it would seem wonderful that precisely similar procedures by poets had occasioned such perplexity and confused discussion among commentators, if one did not remember that the received classic prosody had introduced a fundamentally erroneous notion into English conceptions of verse which must have made such procedures seem contrary to all rule. The classic prosody acknowledged but two possible time-values as among its verse-sounds, — the long and the short, of which the former was to the latter as two to one. It was necessary therefore to construct all classic rhythmic schemes out of two elements only: the long and the short, represented by the signs "–" and "⏑." It is easy to see that this limited number of time-values admitted but slight range of variation in the distribution of them among the tones of each bar: and in point of fact the classic dactyl, for example, — which in our notation is | 𝅗𝅥 𝅘𝅥 𝅘𝅥 |, *i.e.*, a long and two shorts – ⏑ ⏑, — admitted only one other distribution of time-values, namely the spondee, or 𝅗𝅥 𝅗𝅥 (two longs – –), after being once announced as the normal time-value of each bar in hexameter verse.

But in English sounds many time-values besides the short and the long exist: as indicated by the notation above given, which includes the relation of the whole-note 𝅝 to all the others, 𝅗𝅥, 𝅗𝅥, 𝅘𝅥, 𝅘𝅥, besides the rela-

tions of these to each other, and the relations implied in such rhythmical forms as and . It is perfectly evident that these numerous time-values could not be interpreted upon any theory of the short and the long as exhausting all the capabilities of verse-sounds; and the effort to do so resulted in the confused interpretations before mentioned.

In the light of musical procedure, then, let us now proceed to interpret some examples of the liberty which Shakspere, with evident eagerness, avails himself of to vary the long stretches of iambic rhythm in blank verse throughout his plays by variously distributing the time-values within the bars. Without taking the trouble to repeat simple instances of such varying, which must be clear to the reader from the examples already given, let us take a more complex instance, such as line 173 in Act II, Scene 4, of *Measure for Measure*. Throughout the verse of this play, as in all English blank verse, the normal time-value of each bar is three 's, and the *typic* form of bar (see explanation of Typic Forms in the next chapter, on Secondary Rhythm) is , which exactly corresponds in time-relations to the classic iambus (a short before a long) and may well enough be called the Iambic Form. The typic metre, or line-group, in blank verse contains five of these iambic bars; so that the following is a scheme of the type of each blank verse line:

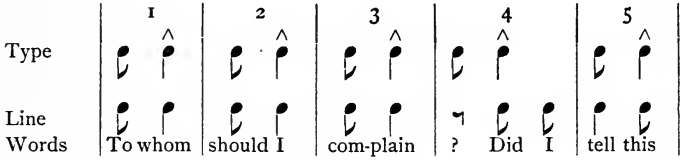


in which, — let it be carefully noticed, — the accent

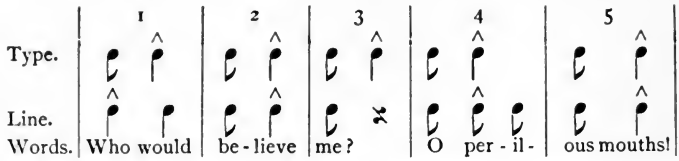
does not fall on the first note in each bar but on the second, and therefore requires to be specially marked by the sign ∧. At the line now to be interpreted Isabella says:

> To whom should I complain? Did I tell this,
> Who would believe me? O perilous mouths!

Compare the first line with the type, and then the second, which is the one to which special attention is called as presenting a very wide and yet thoroughly musical variation.



Here we find the actual movement of the voice in reading the line to coincide with the rhythmic movement in the type until we get to the fourth bar, where an adroit arrangement of the words so as to suggest a rest for the interrogative pause, and an indignant stress on "Did," combine to vary the distribution into the distribution which is equivalent to it in the sum of the time-values, each being equal to three 's, or "$\frac{3}{8}$." But the next line shows a much greater divergence from the type. The place of the accent is changed in the first bar, and the time-values of several notes are relatively re-arranged; yet the time-value of each bar is maintained and the music of the line runs into that of the next with the suavest connection. Writing its notation under that of the type, we have:



In the first bar a process exactly reversing that hitherto described for the triole is used with singular effect. A triole , for example, indicates that the three notes are to be played in the time of two 's; but we may reverse this and indicate that two 's are to occupy the time of three 's. This is what Shakspere has done in the bar now under review. The normal time-value of each of these bars is, as marked at the beginning, $\frac{3}{8}$, or three 's: but, wishing a certain measured and wondering strangeness of stress at the beginning of this line, Shakspere has used words which suggest it by suggesting a change of accent from the second to the first note and a re-distribution of rhythmic times from three notes to two which occupy the same time. The third and fourth bars also present adroit redistributions. That in the third bar may be particularly noticed. Just after the question "Who would believe me?" comes the rest at the place of the typical accented note. Nothing could be more effective than this intensified rest, which amounts to an accentuation of the silence after the question and of the hopelessness that fills it.

It is by the constant use of such redistributions that Shakspere has brought such marvellous and subtle music out of the bare type of blank verse. As he grew older and got his art more in hand he used these

variations more and more liberally, just as he used the run-on lines with increasing plentifulness. The run-on lines, indeed, are merely an extension, into the province of metre or fourth-order rhythm, of the primary rhythmic variations just now described.

From what has appeared in the present chapter and the previous sections relating to the same subject, the following principles should have clearly emerged.

(1) Primary rhythm is the result of simple time-relations between individual verse-sounds.

(2) The English habit of utterance in current speech is to deliver the sounds in some sort of primary rhythm.

(3) The particular sort of primary rhythm thus given varies with different speakers, but only within such limits as allow every speaker to preserve without difficulty the larger time-relations of bar to bar in secondary rhythm.

(4) In consequence of the habit mentioned, words have become so associated with their rhythms as to suggest them when written or printed and thus to become a system of notation for rhythm.

(5) But this system is equivocal to the extent of being liable to different interpretations according to different habits of utterance; and the musical system, which is adequate to the minutest variations and precise in their expression, is therefore valuable in verse.

(6) As varying habits of utterance change the relative time-values of verse-sounds within a bar without changing the absolute value of the bar, so varying habits of versification among poets result in similar internal distributions within the bar.

(7) These habits are purely musical and are to be interpreted in the light of the corresponding processes in music.

CHAPTER IV.

OF SECONDARY RHYTHM: ITS NATURE AND TYPES.

THE following chapter will treat: (1) of the function of the rhythmic accent in grouping individual verse-sounds into bars which constitute a second order of rhythmic units for the measurement of secondary rhythm;

(2) of the principle that this grouping is practically always a grouping either into threes or into fours, which originates two great classes of rhythm, namely, 3-rhythm and 4-rhythm;

(3) of the three forms in which 3-rhythm appears and the two forms in which 4-rhythm appears, as constituting together five main types of rhythm to which all the varieties of English rhythms are clearly referable;

(4) of the manner in which 2-rhythm and 5-rhythm and other such types are really included, in their only practicable forms, in the two types given, so that the list, 3-rhythm and 4-rhythm, is exhaustive as to all rhythmic phenomena in English verse;

(5) of a complete view of the possible variations of 3-rhythm and 4-rhythm according as the rhythmic accent is placed on the first, the second, or other, unit of each bar;

(6) of a complete view of the possible variations of 3-rhythm and 4-rhythm according as the time-value of each bar is distributed among different numbers of sounds.

As matter of fact, established by observation, the ear seems to find more and more pleasure in any series of sounds presented to it according as it can make more and more varieties of exact co-ordinations of those sounds. We have already found that the ear makes three very widely-differing classes of co-ordinations in listening to sounds, namely, those which result in rhythm, those which result in tune, and those which result in tone-color; and it will help us to appreciate the ear's desire for great numbers of these co-ordinations if we recall at this point that the six species of co-ordination we are now studying are all pleasure-giving variations of only the first-named genus of co-ordinations — rhythm.

The last chapter discussed the co-ordinations of individual sound with sound which result in the perception of what we have agreed to call primary rhythm: the present chapter, advancing a step, is to discuss those next-larger co-ordinations of group-of-sounds with group-of-sounds which result in the perception of what we have agreed to call secondary rhythm.

In listening to a poem the ear is enabled to make these co-ordinations by hearing a rhythmic accent recur at a given interval of time. This rhythmic accent marks off given periods of time for the ear: and the ear's power of exactly co-ordinating the duration of sounds enables it to say, as each group passes in review before it, whether all the sounds of each group (bar) fulfil in duration the given period of time which is the normal duration or typic time-value of each group. To these sequent summings-up and comparisons of particulars of time the ear attaches a peculiar delight, which is traced in some form over all the human race. Such

summings-up into bars are all made by means of accent.

But mention has already been made, in various connections and with only partial explanations, of three kinds of accent, to wit: rhythmic accent, pronunciation accent, and logical accent. It is now necessary to discriminate these with precision. This may be done by inquiring what are their common incidents by virtue of which they are all named "accent," and then what are their peculiar incidents by virtue of which they are distinguished into the three kinds, rhythmic accent, pronunciation accent, and logical accent.

Their common function is: to call the ear's attention to particular sounds in a series.

Their special functions are:

To call the ear's attention to particular sounds in a series of verse-sounds or music-sounds, for the purpose of marking the intervals of time allotted to each bar, such interval being always that which elapses between any two sounds thus distinguished by the . . RHYTHMIC ACCENT;

To call the ear's attention to particular sounds in a series of syllabic sounds constituting an English word, for the purpose of emphasizing the special dignity, above other sounds in that word, of the root-sound (generally) thus distinguished by the . . . . PRONUNCIATION ACCENT;

To call the ear's attention to particular words in a series of English words constituting a sentence, for the purpose of emphasizing the

logical importance, above other words in that sentence, of the word whose main sound is thus distinguished by the . . . LOGICAL ACCENT.

These discriminations are based upon varieties of functional purpose. If we now consider the three sorts of accent as phenomena of sound, we can further discriminate them by their respective physical explanations.

The rhythmic accent in universal use for marking-off the bars of music and of English verse is a slight increase of intensity. The physical explanation of intensity refers it (see Chapter I.) to the excursion of the vibrating-body, which is wider according to the force of the vibratory impulse. The width of the excursion thus becomes the measure of the force: and such measure, when perceived by the ear, is what we call intensity. This process — of signalizing each bar by a slightly more forcible production of one of its sounds — is invariable in music and in English verse. The whole system of secondary rhythm in both arts turns upon the timed recurrence of the slight increase in intensity, or rhythmic accent.

But the pronunciation accent often differs physically from the rhythmic accent in consisting not only of this slightly wider excursion which produces the increase of intensity, but also of a slightly faster rate of vibration which gives rise to the perception of a heightened pitch in the sound. This heightening of pitch is easily verified by experiment. If the conduct of a reader's voice who is not aware of the experiment be narrowly watched, it will be observed that in general the emphatic syllable — as for example the first in "rhythmic," the second in

"compare," the third in "referee" — is given with a slightly increased intensity and with a slightly sharpened pitch. But the sharpening is not inevitable, often yielding to those more important variations of pitch which constitute the tunes of speech and which may frequently require a lowering of voice in the accented syllable. The experiment for testing the sharpened pitch in the pronunciation accent is conditioned upon the reader's not being aware of it, because the thousand-fold habit of speech has made its processes so unconscious that when they become conscious they are almost sure to become unnatural.

Such being the physical constitution of the rhythmic accent and the pronunciation accent: when we come to investigate the logical accent it is found not to coincide precisely with either in its nature. Although the logical accent is, in general, an exaggeration of the pronunciation accent as just described — that is, although the logical accent in the majority of cases is a greater increase of intensity and a higher sharpening of pitch than the pronunciation accent — sometimes it is a lowering or flattening of pitch combined with the increase in intensity. Its general nature — as a combination of increased intensity and heightened pitch greater than that of the pronunciation accent — may be well illustrated by an example in which a logical antithesis is set up between two pronunciation accents. For example, let the reader utter the following sentence aloud:

"In English, we do not say 'rhyth*mic*,' we say '*rhýth*mic.'"

Here a logical antithesis is set up between the first pronunciation and the second: and consequently the logical accent, which is used to call the attention of

the ear to antithetic words, here falls upon the same sounds with the pronunciation accent. The result is a very clear and pronounced combination of increased intensity and sharpened pitch. But, particularly where the expression is of wonder or contempt, the logical accent often yields its heightening of pitch in favor of a tune of speech which requires a lowering of pitch. For example, in the following question the sound "wom-" is lower in pitch than the others:

"Would you strike an unprotected woman?"

as may be more clearly perceived by noticing the relatively sharp pitch of the antithetic "woman" in uttering aloud the merely interrogative question,

"Was it a woman, or a man?"

In point of fact, the pronunciation accent is simply the logical accent on a smaller scale,—having its origin in the logical pre-eminence of the root-syllable over the other syllables in a word. Hence the description of the logical accent as a physical exaggeration of the pronunciation accent agrees with its nature; and it is also easily seen that the logical accent in practice partly falls on the same sound with the pronunciation accent, embracing in its scope the whole word instead of a single syllable.

In fine: let the reader always think of

The rhythmic accent as concerning the bar, or secondary rhythm;
The pronunciation accent as concerning, primarily, at least, the root-syllable of a word;
The logical accent as concerning the prominent words of a sentence.

These accents have been dwelt upon with care for the reason that grave errors have arisen in modern

criticism through the confusion of their natures and functions. Such errors will be pointed out in the discussion of those types of rhythm, particularly that of blank verse, which they have specially concerned.

It is worth while observing finally that the variations of pitch which distinguish two of these accents are really primordial forms of the tunes of speech discussed in Part III.; and when it was remarked that their pitch-variations sometimes yield to those of the more highly-developed tunes, this was only another method of saying that the tune of speech changed from a higher tone to a lower one for some special meaning.

Having thus discriminated the rhythmic accent: we are now to trace its function in marking-off bars of secondary rhythm for the ear.

It was above explained that the musician begins his notation of ideas by placing at the head certain figures which establish the normal time-value of each bar: as "$\frac{3}{4}$," which advertises the reader that each bar is to contain a time-value equivalent to 3 quarter-notes: or as "$\frac{3}{8}$," which advertises the reader that each bar will contain a time-value equivalent to 3 eighth-notes. It was then explained that the poet accomplishes the same purpose of advertising the reader of the time-value intended for each of his bars by initiating the rhythm with words which unequivocally suggest the bar. As, for example, a poem beginning with

Wistfully | wandering |

substantially informs the reader that each bar is to have the time-value and rhythmic accent of "wistfully" or of "wandering" — that is, a time-value of 3 eighth-

notes and a rhythmic accent on the first sound of each bar.

Pursuing the subject from this point: it is not always, nor even usually, necessary that the rhythm should be initiated by a single word, as "wistfully" in the example. The same bar — which, as consisting of three equal units of time, we may call hereafter "3-rhythm" as contradistinguished from the "4-rhythm" presently developed — the same bar of 3-rhythm may be hinted by beginning with a two-sound word whose accent is on the first sound, following that with one unaccented sound, and then placing another accented sound: as, for example, instead of the words

Wistfully | wandering | over the | waters, |

the words

Wistful she | wandered a- | way o'er the | waters |

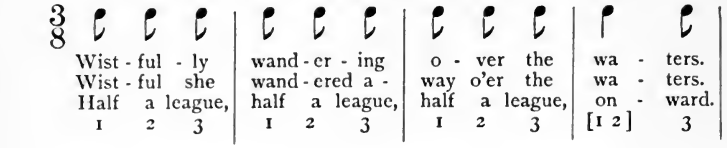
would unequivocally initiate the same 3-rhythm.

Indeed, numerous collocations of single words are pronounced in familiar conversation with such an accent and primary rhythm that the poet may confidently initiate a rhythm with them. Thus Tennyson has not hesitated to put forth

Half a league, | half a league | half a league, | onward

relying upon the ordinary swing of the words "half a league" in current utterance to suggest to the reader the 3-rhythm

These three methods of initiating a 3-rhythm may now be placed under each other for better comparison, with numbered sounds and a typic scheme:

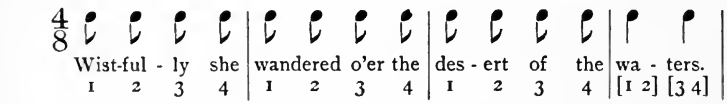


But suppose it should be desired to initiate a type of secondary rhythm in which the bar consists of four equal units of time — that is, a type of 4-rhythm, of the form

Here, the rhythmic accent must recur on every fourth sound, instead of on every third sound as in 3-rhythm. The typic bar may therefore be conveyed to the reader as follows:

Wistfully she wandered o'er the desert of the waters,

where the rhythm is clearly seen to be



To these examples of the method of initiating given rhythms it is perhaps necessary to add nothing more than the caution that opening bars consisting of single words are often capable of more than one rhythmic interpretation, and that such equivocal bars should rarely occur at the beginning of a piece. When occurring in the body of it, after the type of rhythm has been clearly given to the reader, they occasion no trouble of course because the type gives the clue by which the reader's mind even unconsciously rhythmizes them.

For example: in the old English ballad "Proud were the Spencers" (see Hale's and Furnivall's edition of

Bishop Percy's Manuscript) the first two bars might be either 3-rhythm,

or 4-rhythm of the form

and the reader is unable to decide which of these is intended until the last two bars of the line are reached, which admit of no rhythmic arrangement except that of 4-rhythm,

All such equivocal beginnings are bad. The resources of our language as to rhythm are so copious that not the laziest ballad-maker need ever be at a loss for means of indicating the intended movement of verse with unmistakable clearness.

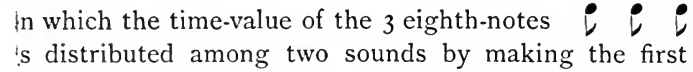
The two great classes of secondary rhythm which have been named "3-rhythm" and "4-rhythm" comprise, as types, all the rhythmic combinations made with English words. When the rhythmic accent recurs at that interval of time represented by three units of any sort — no matter among how many sounds this amount of time may be distributed — we have the effect upon the ear of 3-rhythm: when the rhythmic accent recurs at that interval of time represented by four units of any sort — no matter among how many sounds this amount of time is distributed — then the effect on the ear is that of 4-rhythm.

But the expression above, "no matter among how many sounds this amount of time is distributed," refers only to the general effect upon the ear as 3-rhythm or 4-rhythm; and, in practice, certain favorite methods of distributing the given time of each bar have specialized three very strongly-marked forms of 3-rhythm, and two very strongly-marked forms of 4-rhythm, in English poetry.

These forms are as follows. 3-rhythm occurs under the typic form (1)

of which Tennyson's *Charge of the Light Brigade* is a modern example (though, as we shall presently find, this is the earliest type of rhythm in our language)

or under the form (2)



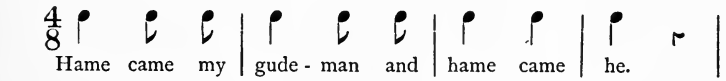
in which the time-value of the 3 eighth-notes is distributed among two sounds by making the first sound in the bar a quarter-note, equivalent in value to the 2 first eighth-notes of the bar: this form finding a modern illustration in Poe's *Raven*,

or under the form (3)

where the form (2) is exactly reversed, the two last eighth-notes in each bar coalescing into one sound of a quarter-note's length, and the rhythmic accent recurring on the second time-unit in each bar instead of on the first. In the separate discussion of these forms which is presently to follow, another method of noting the present one will be presented and their respective merits set forth.

4-rhythm occurs under the typic form (1)

or under the form (2)

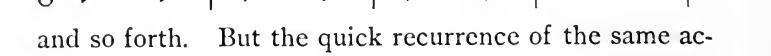


These five forms, or sub-types, of the two main types afford us five natural and convenient divisions for the special study of secondary rhythm as it appears in English verse. This special discussion is begun in the next chapter, with the consideration of the remarkable circumstance that every long poem, and nearly every short one, in the English language since the beginning of our poetic history in the seventh century has been written in 3-rhythm.

But before advancing to that division it seems proper to end this general view of 3-rhythm and 4-rhythm by answering the very natural question which will arise in the student's mind as to why there should not be other classes of secondary rhythm besides the 3-class and the 4-class — why, for instance, we should not have 2-rhythm and 5-rhythm, and so on.

Considering first the question as to 2-rhythm: its

answer is that 4-rhythm (which we have) is substantially 2-rhythm in the only form in which it would be tolerable to the ear. This may easily be seen if we consider what 2-rhythm would be in its typic form if rigidly maintained. The scheme of such a type is —



and so forth. But the quick recurrence of the same accent on every alternate sound, without any relief through the variation in time-distribution among the sounds — which variation the shortness of the bar renders necessarily limited — would be a monotonous iteration not pleasant to the modern English ear.

It would seem that such a rhythmus existed among the Greeks. The grammarians describe a foot of theirs called the Pyrrhic which was "two short," or "⏑⏑;" and such a foot would be precisely one bar, , of the 2-rhythm now in hand. It might be an interesting point — how the Greek declaimer of such a series of sounds could mark-off the feet to the ear of his audience without a rhythmic accent. In a succession of Pyrrhics there would be no recurrent difference of duration to mark off groups; a recurrent change of pitch in the voice, at such short intervals, would be intolerable; and a recurrent tone-color, at the same intervals, would be not only intolerable, but well-nigh impossible. If, therefore, all the resources of duration, of pitch, and of tone-color be thus out of his power: if, as many assert, the signs ˋ and ´ and ⏑ called "accents" in Greek were intensity-accents; and if, as is evident on the least inspection, these accents do not coincide with the rhythmic accent but fall at such intervals as would utterly destroy all possible groupings by means of the

rhythmic accent: it would seem that we must be driven to one of two conclusions, either that the Greeks did use the rhythmic accent just as we do for secondary rhythm, or that the Pyrrhic was in Greek — as the $\frac{2}{8}$ bar 𝅘𝅥𝅯 𝅘𝅥𝅯 is in English — a merely theoretical measure.

Among several acute remarks which peer through the mass of error in Poe's *Rationale of Verse* is one which ridicules the idea that any such measure as the Pyrrhic exists in English poetry.

The remark as to the monotony of the recurrence of a similar rhythmic accent at an interval so short as 𝅘𝅥𝅯 𝅘𝅥𝅯 will have prepared the reader to see that the form of 4-rhythm herein adopted substantially saves to us all the swing of 2-rhythm without this disadvantage. In 4-rhythm, in fact, many bars occur in the form | 𝅘𝅥 𝅘𝅥 | (equivalent of course to | 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 |) which is 2-rhythm founded upon the longer unit 𝅘𝅥 instead of the unit 𝅘𝅥𝅯; while in 4-rhythm bars of the form | 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 | there is, in practice, a slight accent placed on the third note — an accent well known in music as the "secondary" or subsidiary accent, occurring always on the third time-unit of bars which involve four time-units.

In accordance with these considerations we find in music the very common rhythmus $\frac{2}{4}$ — which is the same as our $\frac{4}{8}$, or 4-rhythm, in verse, — but so far as I am aware no piece of music has been written in the rhythmus $\frac{2}{8}$, or | 𝅘𝅥𝅯 𝅘𝅥𝅯 |.

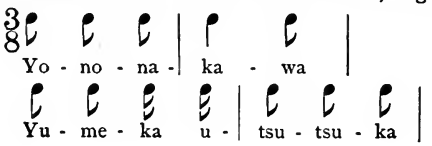
Accepting these as sufficient grounds for the absence of 2-rhythm from our list of secondary types: when we

come to consider the absence of 5-rhythm entirely different reasons present themselves. These are founded on the difficulty which the ear finds in co-ordinating recurrences of the rhythmic accent at the interval of 5 units. It is not the length of the interval, but the oddness of it, which seems to trouble the ear. 5-rhythm has been occasionally attempted, as an experiment, in music, and Robert Franz has even written a song in 7-rhythm.[1] Without here considering the latter, which

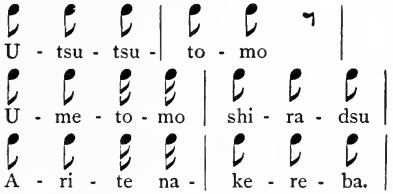
[1] It is interesting to remark in this connection that the form of the Japanese ode is framed upon the numbers five and seven, the entire ode consisting of thirty-one syllables which are always distributed among five lines, giving five syllables to the first line, seven to the next, five to the next, and seven each to the two last. This arrangement is not theoretically rhythmical among them, and it is commonly supposed that the Japanese have no rhythm in their verse. On hearing several poems recited, however, by Mr. Mitsukuri and Mr. Kuhara — two highly-intelligent Japanese gentlemen who are now Fellows of Johns Hopkins University, and who have obligingly favored me with several readings for this purpose — I am strongly inclined to think the Japanese verse not only rhythmical, but rhythmical according to the forms and limitations just set forth as to English verse. Thus although the five-syllabled and seven-syllabled lines of the Japanese ode seem to contravene the principles of 2-rhythm and 3-rhythm just now asserted, on investigation they strike my ear as being so pronounced in actual utterance as to become genuine 3-rhythm. For example, the following poem — in which I have divided each syllable of a word from its neighbor by a hyphen, for clearness' sake : —

1 2 3 4 5
Yo-no-na-ka-wa
1 2 3 4 5 6 7
Yu-me-ka u-tsu-tsu-ka
U-tsu-tsu-to-mo
Yu-me-to-mo shi-ra-dsu
A-ri-te na-ke-re-ba

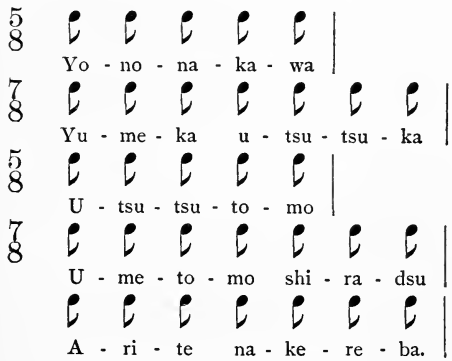
(the *a* sounded as our *ah* and the *i* as our *ee*) might be noted crudely



is a unique *tours de force* of this charming writer: it will help the student's conception of the precise difficulties of 5-rhythm if I briefly describe what is, so far as I know, the most successful conquest of them thus far achieved in music. This is the "Halling Dans," or

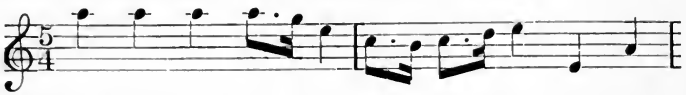


But it is more than possible that my own strong expectation of finding this rhythm, based upon the universality of the form in all European rhythmic effort, may have prejudiced my ear to hear it; and added to this is the extreme uncertainty which must attend all nicer judgments upon rhythm in a foreign tongue. Of the general fact of rhythm, however, my ear brought a quite conclusive verdict. I think it safe to say that if the rhythm of the poem was not as above noted, it was a genuine, and very interesting, case of pure 5-rhythm and 7-rhythm alternating. It sometimes sounded quite plainly so. In this event the notation of the thirty-one syllabled ode would be:



in which each line consists of a single bar, and, further, in which each seven-group seemed to be pronounced in the same time with the five-group. It may interest the curious to add that the poem given is very striking in

Fling, movement in a Norse Suite by Mr. Asger Hamerik, of Baltimore. The theme is as follows:

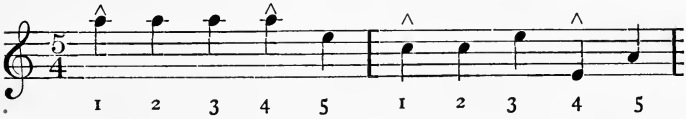


With the utmost adroitness the author has caused the very difficulties of this 5-rhythm to aid the spirit of the movement. He is picturing a dance, not of carpet-knights or Mabille debauchees, but of men making merry between warlike deeds, — Vikings between voyages; and the rhythmic turmoil and hilarious riot of their Norse fling, or Halling-dance, could not be better conveyed to the hearer's ear than through the trouble which the ear finds in keeping up with this rhythm — a trouble so great that even the trained musicians of the orchestra must pay the strictest attention in order to keep the time, while to most hearers there seems to be a peculiar mirthful jerk of time in each bar manifesting itself through all the complex beauty of the melody and of its instrumentation in the orchestra. If, now, we investigate this "jerk" for a moment, and ascertain exactly by what means the orchestral players keep up with the 5-rhythm of this movement, we shall find that the question as to 5-rhythm in our enumeration of types is answered by the fact that 5-rhythm, in its practical form, is really a combination of 3-rhythm and 2-rhythm (the 2-rhythm just now described as used in music and as the same with our 4-rhythm, $\frac{2}{4}$ being same as $\frac{4}{8}$) and is thus in-

its significance, and sounds as if it came out of Hamlet, though it dates from before the tenth century. It may be translated:

This life —
Is it a dream or a reality?
Whether a reality
Or a dream we cannot know,
For it is, and it is not.

cluded in our list. For the musical phrase of the Halling Dance just now given is played with the rhythmic accents placed as indicated by the mark ^ in the following, where to prevent perplexing the student I have reduced every note in each bar to the primary unit of the bar, thus presenting an outline of the melody:



That is, the rhythmic accent recurs the first time at the interval of 3 notes, the next time at the interval of 2 notes, then at 3 notes, then at 2, and so on; in other words we have practically a bar of 3-rhythm, then a bar of 2-rhythm (our 4-rhythm), then a bar of 3-rhythm, then one of 2-rhythm, and so on: in short, a succession of bars in which 3-rhythm regularly alternates with 4-rhythm.

Thus 5-rhythm, so far as it is practicable, is included in our two types 3-rhythm and 4-rhythm.

It is hardly necessary to add that all rhythms above 5-rhythm are either even rhythms, and mere doubles of 3-rhythm and 4-rhythm, — as 6-rhythm which is merely 3-rhythm repeated, and 8-rhythm which is merely 4-rhythm repeated, — or are odd rhythms and are controlled by the considerations advanced in regard to 5-rhythm.

It is proper here for the sake of completeness to review all the possible forms of these two great types of rhythm according as the rhythmic accent is placed on the first, the second, the third, &c., units of the bar. Of course either method is sufficient to mark the time, bar by bar; in 3-rhythm, for instance, the grouping into

threes is sufficiently indicated to the ear whether the rhythmic accent falls on the first, the second, or the third unit of the bar, so long as the accent recurs on every third unit after the first unit on which it was heard.

In 3-rhythm, different positions of the accent would give us the following possible forms of bars:

—accent on first unit, understood always without being expressed, as heretofore explained;

—accent on second unit;

and

—accent on third unit.

Similarly, in 4-rhythm, we would have four possible forms of bars, according to accentuation:

; and

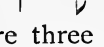
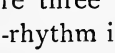
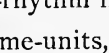
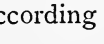
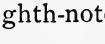
; and

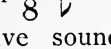
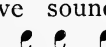
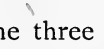
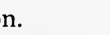
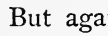
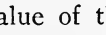
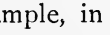
; and

.

The general view of the two types, 3-rhythm and 4-rhythm, will now be complete if the possible forms of their bars according to the number of separate sounds in each be discussed.

No more fruitful source of error has vitiated the theories of verse than the confusion of the actual number of sounds in a bar with the typical number of time-units in the bar. For example, we may have a bar of 3-rhythm in which there is but one sound while there

are three time-units, ; another bar of 3-rhythm in which there are two sounds, yet still three time-units, ; another bar of 3-rhythm in which there are three sounds and three time-units; another bar of 3-rhythm in which there are four sounds and still three time-units, , and this might appear, according as we divide the first, the second, or the third, eighth-note into two, as  , or  , or  ; another bar in which there are five sounds, yet still the normal three time-units, , or  , or ; another bar in which there are six sounds and yet only the three normal time-units,  ; and so on.

But again, instead of distributing the normal time-value of the bar among sounds entirely, we may distribute them among sounds and silences: as, for example, in either one of the above forms of 3-rhythm bars, we may substitute for any one of the sounds a rest of the same time-value, in which case the one-sound bar  might appear either as  , or , or ; the two-sound bar as  , or as  , or as  : the three-sound bar as  , or as , or as  , or in many other forms; and so on.

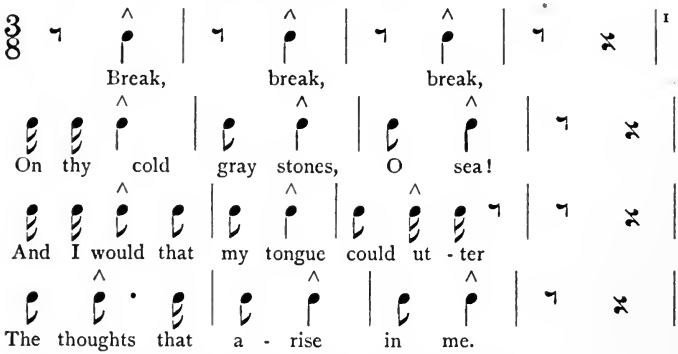
In the same way, any bar of 4-rhythm may be greatly varied by variously distributing the four time-units among different numbers of sounds.

It is of prime importance for the reader to remember in this connection:

(1) That the bar takes its name, as 3-bar (i.e., bar of 3-rhythm) or 4-bar (i.e., bar of 4-rhythm), not from the number of sounds in it but from the typic number of time-units in it:

(2) That the verse-maker or the musician may put one sound or one silence, or any number of sounds or of silences or of both, into any bar of any form of any rhythm in English poetry, so long as the time-values of these sounds and silences, when added, exactly make up the normal time-value of the bar;

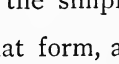
(3) That it is not necessary to have all the bars, in any given piece of verse, of the same form as to their number of sounds or as to the distribution of time-value among those sounds: as is well illustrated in the scheme of Tennyson's *Break, break, break,*



where a great diversity of bars is presented,

[1] This different method of writing the scheme from that before

(4) That even a change in the place of the rhythmic accent sometimes affords an agreeable variation, if it be for only one bar at a time, and made after some rest, or silence, in the verse which prepares the ear for a new accentuation, as at the beginning of a line, for example, which is the usual place for such a change;

(5) That in determining the typic form to which a given piece of verse may be referred, therefore, we do not consider a single bar, nor two bars, but look along the body of the piece at the sum of appearances and ascertain what is the simplest form of bar predominating in the piece, — to which form we then refer it; as, for example, in the scheme of *Break, break, break* just given, we look along through the stanza, and, finding several bars of the simple form  , we refer the poem to that form, as the typic bar, of which all the others are varieties;

(6) That, in pursuance of this course, we may often write schemes of poems which present only the main typic forms of the bars, and which are absolutely accurate for all purposes except where there is special occasion to represent the actual movement of the reader's voice in each bar of a poem; so that hereafter, in presenting schemes of verse, unless qualifying words appear at the beginning, it is to be understood that the scheme is not intended to represent the minuter variations in the bars dependent upon this or that distribution of time-values among this or that number of sounds, but only the simplest form of such distribution which predominates in the poem;

given is better because it preserves the line-arrangement of the words in the notation.

(7) That, in point of fact, the practice of English verse in persistently repeating certain selected forms of bar for many centuries has resulted in the emergence of five great forms — three forms of 3-rhythm and two forms of 4-rhythm — out of the large number of possible forms already hinted-at, to which all the varieties of rhythm in English verse may be referred.

The student should now be exercised with the utmost thoroughness upon the matters discussed in the present chapter. For this purpose:

(1) The scheme of *Break, break, break*, should be required to be written from memory on the blackboard;

(2) Each bar should be taken-up in succession and the student caused to add the time-values of its separate sounds and silences so as to demonstrate their agreement with the typic time-value $\frac{3}{8}$;

(3) The various possible forms of bars given above should be repeated, and extended through other distributions in 3-rhythm and 4-rhythm, with the exactest detail, at least until the student has thoroughly mastered the relations of notes and the distinction between the number of sounds and the number of typic time-units in a bar.

CHAPTER V.

OF 3-RHYTHM, GENERALLY; AND SPECIALLY OF ITS THREE FORMS.

THE following chapter will deal:

(1) With the remarkable fact of the almost exclusive prevalence of 3-rhythm in English poetry from its beginning to the present time, illustrating this prevalence with citations from the Anglo-Saxon poem of *The Battle of Maldon* (10th century), and the later English poems of *The Ormulum* (13th century), *The Cuckoo-Song* (13th century), *The Vision concerning Piers Plowman* (14th century), *The Canterbury Tales* (14th century), *The Song of Ever and Never* (early 16th century), Shakspere's *Plays*, *Endymion*, *The Raven*, *The Idylls of the King*, *The Psalm of Life*, *Brahma*, and *Atalanta in Calydon*;

(2) Specially with blank verse.

I think no circumstance in the history of æsthetics is so curious as the overpowering passion of the English ear for 3-rhythm as opposed to 4-rhythm. From the beginning of English poetry with the *Song of the Traveller*, which we may perhaps refer to the 6th century: or, speaking within the more certain bounds of poetic history, from our father Cædmon: through all the wonderful list down to the present day, every long poem and nearly every important short poem in the English language has been written in some form of 3-rhythm.

This being so, I have thought that a brief outline of

the course of English rhythm ⏑– a contour, drawn in musically-noted schemes of the rhythms which have distinguished our greatest poems — might form a method of presenting the three forms of 3-rhythm not only more agreeable than a stricter order of treatment, but more effective for the student's clear conception, since such an outline will necessarily be composed of one after another illustration of the three forms in question as they have been applied by the greatest artists in our tongue.

Beginning with Anglo-Saxon poetry, we find that a single form of 3-rhythm prevails in it exclusively for the first five hundred years of our poetic history. Below will be given a scheme in which one hundred bars of a very noble and manful Anglo-Saxon poem have been carefully reduced to notation; the number of simplest forms in the scheme will then be counted, and a typic scheme constructed upon the percentage which these numbers bear to the whole number of bars. This procedure will be found to reveal quite clearly that the typic form of Anglo-Saxon secondary rhythm is an alternation of bars of the form $\frac{3}{8}$ ♩ ♩ ♩ | with bars of the form $\frac{3}{8}$ ♩ ♩ |. An inquiry thus conducted offers a means of testing Anglo-Saxon rhythms with mathematical precision, which any reader may adopt for the purpose of verifying the conclusions herein given.

Before presenting this scheme it is worth while mentioning that the fundamental misconception, already discussed, of the nature of rhythm as based upon accent and not on quantity, has resulted in vitiating, to a greater or less extent, pretty nearly all the estimates of Anglo-Saxon rhythm heretofore given. A couple of

hundred years ago the learned Hickes declared his belief that the "feet" of Anglo-Saxon poetry should be measured by the laws of classic quantity. This opinion, while not quite correct, seems to be more nearly so than any subsequent one, except Conybeare's.

Dr. Guest, in his *History of English Rhythms*, pp. 174–5, has not hesitated to affirm that "in none" of the Anglo-Saxon poems "is found the slightest trace of a temporal rhythm," — that is of a rhythm based upon time, or quantity. Tyrwhitt — though his ignorance of Anglo-Saxon perhaps deprives of all authority a judgment which was often so penetrating in more familiar departments of scholarship — could see no rhythm at all in Anglo-Saxon poetry, nor even its alliteration.

In the otherwise admirable grammatical introduction of Sweet's Anglo-Saxon *Reader* — in many respects the most worthy work of this nature known to the present author — the statement occurs: "the essential elements of O. E." (Old English, or Anglo-Saxon) "versification are accent and alliteration. . . . *The number of unaccented syllables is indifferent.*"

The italicized portion of the last sentence is thus marked for the purpose of calling attention to another form in which the original error as to "the essential element of rhythm" (supposed to be accent) appears in several modern treatises. The necessary dependence of rhythm upon time, or quantity, and that alone, has already been set forth; and "the number of unaccented syllables" was therefore so far from being "indifferent" that the ear of the old Anglo-Saxon audience before whom the gleeman stood forth with his harp and chanted the poem could not have kept the mighty rhythm which beats through all these songs without a

strict co-ordination of all the verse-sounds, unaccented as well as accented.

A similar statement as to the syllables is found in that wonderful little treasury, the Rev. Stopford Brooke's *Primer of English Literature:* "It" (that is, Old English or Anglo-Saxon poetry) "was not written in rime [1] nor were its syllables counted."

Mr. Morley, in his *First Sketch*, makes a similar affirmation as to the syllables.

Even Conybeare, whose appreciation of Anglo-Saxon rhythm was warm and enthusiastic, nevertheless writes, with a certain timidity, "The general rhythm and cadence of their" — the Anglo-Saxons' — "verse is not altogether undiscoverable."

But, accepting, if only provisionally, the doctrine hereinbefore presented that all rhythm is necessarily based upon quantity, and that this quantity is only perceived through the exact co-ordination by the ear of all the individual time-values of the sounds, or syllables, both accented and unaccented: if we shall find, upon reducing a considerable portion of Anglo-Saxon verse to notation according to this hypothesis and actually "counting" all the "syllables," that a definite rhythmical purpose appears, revealed in quite determinate types of rhythm which vary from bar to bar only in details for the sake of avoiding monotony, — perhaps it may be fairly considered that the case in favor of Anglo-Saxon rhythm has been made out.

With this view, the following scheme is presented. In order to give it an interest beyond the merely technical, I have chosen for notation a passage from a poem

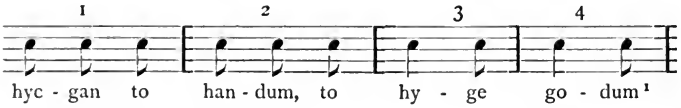
[1] But see the *Rhyming Poem* quoted in Part III., on the colors of English verse, and the rhymes in *The Phœnix*.

written in 993 called *The Battle of Maldon* — otherwise sometimes *The Death of Byrhtnoth* — which, in the judgment of my ear, sets the grace of great loyalty and the grimness of wild battle to glorious music. Perhaps no man could hear this strain read aloud without a notable stirring of the blood.

The rhythm of this poem — let it be observed as the reader goes through the scheme — is strikingly varied in time-distribution from bar to bar. The poem in fact counts with perfect confidence upon the sense of rhythm which is well-nigh universal in our race, often boldly opposing a single syllable in one bar to three or four in the next. I should not call this "bold," except for the timidity of English poetry during the last two hundred years, when it has scarcely ever dared to venture out of the round of its strictly defined iambics, forgetting how freely our folk-songs and nursery-rhymes employ rhythms and rhythmic breaks — as "Peas porridge hot," for example, or almost any verse out of Mother Goose — which, though "complex" from the stand-point of our customary rhythmic limitations, are instantly seized and co-ordinated by children and child-minded nurses.

A peculiarity of the Old English poetry must be now mentioned which enabled the craftsman in words to venture upon these variations with certainty that the hearer's ear would recognize their rhythmic significance at once. This was its well-defined system of alliteration. In most lines the three first bars or feet begin with the same consonant; in others the three first bars begin with a vowel, though not necessarily the same vowel; in others the two middle bars begin with the same consonant; and in others the first and third bars

begin with the same consonant. These four alliterative types are rarely departed from: and thus it will be seen that in most cases three, and in nearly all other cases two, distinct rallying-points of rhythm were unequivocally indicated to the ear. For example, in the fourth line of *The Battle of Maldon:*



the alliterative h's of hycgan, handum, and hyge determine the two first bars for the ear as $\frac{3}{8}$ 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯, and the two last as equivalent $\frac{3}{8}$ 𝅘𝅥 𝅘𝅥𝅯, with absolute certainty.

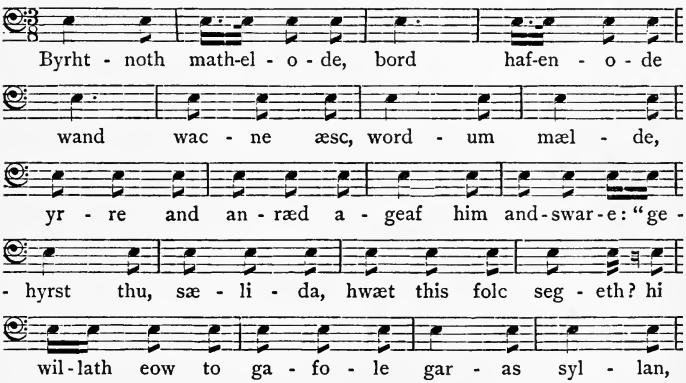
I wish now to arrange twenty-five lines from *The Battle of Maldon* so that the general reader though wholly unacquainted with Anglo-Saxon may represent to himself with tolerable accuracy the swing and lilt of the original sounds. For this purpose, the following simple directions will suffice to indicate the pronunciation, letters not given being sounded as in modern English.

a as a in "f*a*ther."
æ " " " m*a*n."
ē " prolonged e in "m*e*rry."
e " e in "m*e*t."
i " i " "mach*i*ne."
y " i " "*i*t."
ea nearly as ea in "r*ea*r."
eo " " eo " "Leoville."

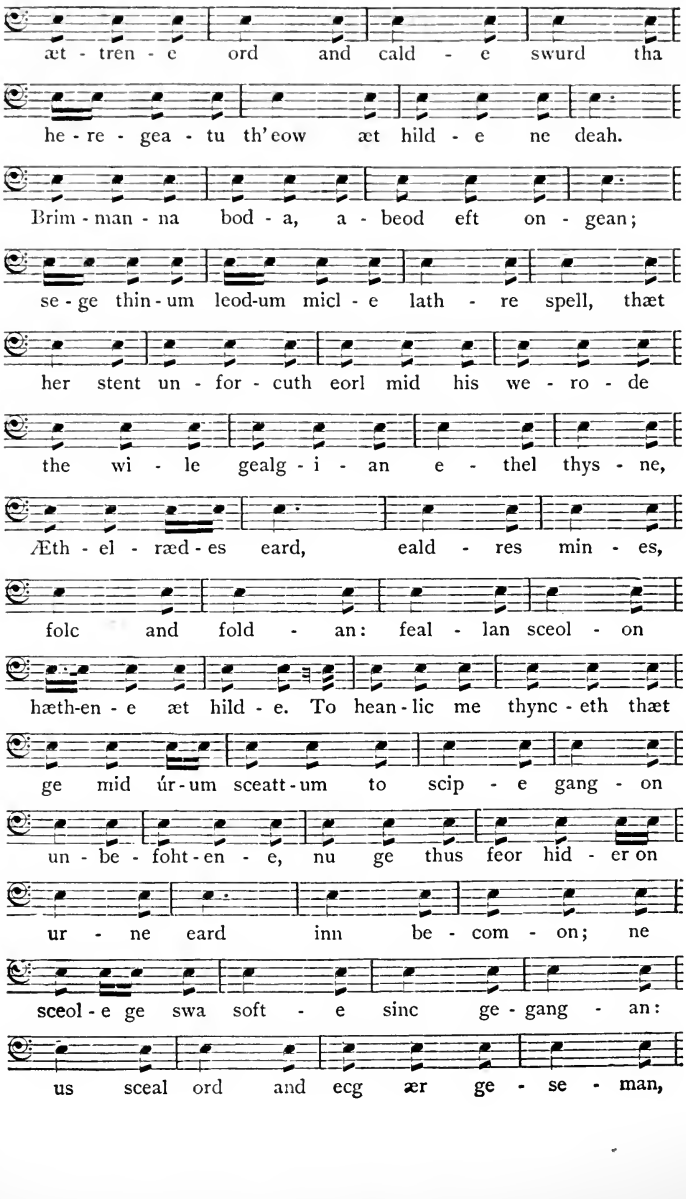
Pronounce all the *c*'s like *k;* and always make a syllable of *e* at the end of a word, as "stæthe" = *stath-eh,* "stithlice" = *stith-lik-eh,* "clipode" = *clip-o-deh.*

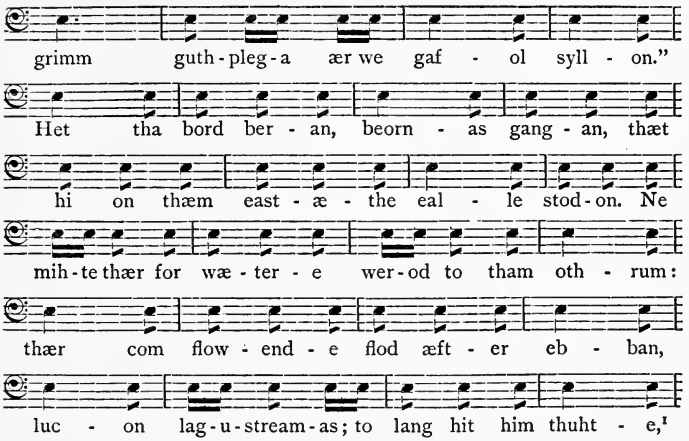
[1] To combat hand to hand, with good heart.

The passage given is from line forty-two to line sixty-seven, which contains the manful defiance of Byhrtnoth to the vikings. We are in the year 993: scene, the coast of England: a party of vikings — ninety-three ship-loads of them — have landed, bent upon plunder: Byrhtnoth, a stout thane of Æthelred's, leads a party of English warriors to oppose the pirates and forms his men along one bank of the river Panta which here runs into the sea, the enemy being arrayed on the other bank: a messenger of the vikings then "stands forth," and "strongly calls" over the water to Byrhtnoth that if he will pay liberal tribute — "rings for ransom" — the vikings will agree to leave him unmolested and take to their ships again and sail away. Whereupon:[1]



[1] It is hardly necessary to say that the E of the bass-clef upon which the following notation is arranged has no other significance than that of a convenient tone which the reader can strike, if he chooses, on the piano, according to the rhythm here indicated. It will be noticed too that — as often happens in modern verse — syllables really belonging to the last bar of a line often begin the first of the next line. These for the sake of convenience I have put always where they belong rhythmically, that is, at the ends of their rhythmic phrases.


æt - tren - e ord and cald - e swurd tha
he - re - gea - tu th'eow æt hild - e ne deah.
Brim - man - na bod - a, a - beod eft on - gean;
se - ge thin - um leod-um micl - e lath - re spell, thæt
her stent un - for - cuth eorl mid his we - ro - de
the wi - le gealg - i - an e - thel thys - ne,
Æth - el - ræd - es eard, eald - res min - es,
folc and fold - an: feal - lan sceol - on
hæth-en - e æt hild - e. To hean - lic me thync - eth thæt
ge mid úr - um sceatt - um to scip - e gang - on
un - be - foht - en - e, nu ge thus feor hid - er on
ur - ne eard inn be - com - on; ne
sceol - e ge swa soft - e sinc ge - gang - an:
us sceal ord and ecg ær ge - se - man,



"Byrhtnoth cried to him, brandished the buckler, shook the slim ash,[2] with words made utterance, wrathful and resolute, gave him his answer: 'Hearest thou, sea-rover, that which my folk sayeth? Yes, we will render you tribute . . . in javelins — poisonous point and old-time blade — good weapons, yet forward you not in the fight. Herald of pirates, be herald once more: bear to thy people a bitterer message, — that here stands dauntless an earl

Byrhtnoth mathelode, bord hafenode,
wand wacne æsc, wordum mælde,
yrre and anræd, ageaf him andsware;
'Gehyrst thu, sælida, hwæt this folc segeth?
Hi willath eow to gafole garas syllan,
ættrene ord and ealde swurd,
tha heregeatu the eow æt hilde ne deah.
Brimmana boda, abeod eft ongean;
sege thinum leodum micle lathre spell,

with his warriors, will keep us this country, land of my lord Prince Æthelræd, folk and field: the heathen shall perish in battle. Too base, methinketh, that ye with your gold should get you to ship all unfoughten with, now that so far ye have come to be in our land: never so soft shall ye slink with your treasure away: us shall

[1] The translation following is nearly literal, and for convenience is accompanied with the text.

[2] Ash: i.e. ashen shaft of his javelin, for which "æsc" is a common expression

persuade both point and blade — grim game of war — ere we pay you for peace.'

Bade he then bear forward bucklers, and warriors go, till they

thæt her stent unforcuth eorl mid his werode,
the wile geealgian ethel thysne,
Æthelrædes eard, ealdres mines,
folc and foldan: feallan sceolon
hæthene æt hilde. To heanlic me thynceth
thæt ge mid urum sceattum to scipe gangon
unbefohtene, nu ge thus feor hider
on urne eard inn becomon;
ne sceole ge swa softe sinc gegangan:
ns sceal ord and ecg ær geseman,
grimm guthplega, ær we gafol syllan.'
Het tha bord beran, beornas gangan,

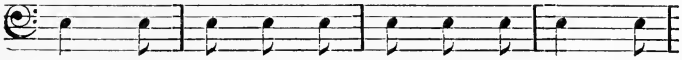
all stood ranged on the bank that was east. Now there, for the water, might never a foeman come to the other: there came flowing the flood after ebb-tide, mingled the streams: too long, it seemed to them, ere that together the spears would come."

thæt hi on tham eastæthe ealle stodon.
Ne mihte thær for wætere werod to tham othrum:
thær com flowende flod æfter ebban,
lucon lagustreamas: to lang hit him thuhte,
hwaenne hi togædere garas bæron.

An inspection of this musical map reveals a rhythmic scheme which admirably secures power, variety, and a certain hurrying rush and ordered riot of sounds. Each line consists of four bars,[1] and each bar of a number of syllables which mark off determinate periods of time for the ear. The reader will easily catch the essential swing of the poem by fixing in his mind, for

[1] The importation of this term into the nomenclature of poetic science clears away at a single stroke such an accumulation of errors and confusions as no one would be prepared to believe who had not made special study of English criticism during the last three hundred years. The "foot" of classic metres was . . . whatever fancy might choose to make it: but as soon as it is identified with the "bar" of music, whose nature and functions are as well understood as the simplest mathematical formula, it becomes a thing which can be discussed with profit, as being matter of scientific precision.

example, the movement of the beautiful line (next to the last in the extract just given)



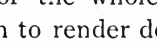
which may be considered the type of all the lines. The method of varying this type so as to prevent the movement from growing monotonous may be accurately ascertained by the following calculation. Out of the one hundred bars given above (twenty-five lines with four bars each) there are forty-three bars of the form (1) ; thirty-four bars of the form (2) ; sixteen bars of the form (3) [1] — which I have written also as , or , or , considering that in the absence of more minute data than we possess as to Old English pronunciation these forms of (3) may be used interchangeably, or at least according to the feeling of the reader; and seven bars of the form , — which might be written , or sometimes where the syllable is evidently not meant to be prolonged.

Now, classifying these four varieties with reference to their effect on the ear, the forms (2) and (3) may be considered as one, both conveying a sense of rush and hurry; (1) constitutes a class by itself representing still

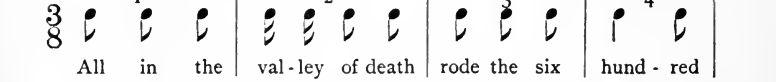
[1] In the last line of the extract the second bar consists of five syllables and has the form . I have classed this — with sufficient accuracy for the purposes of this paper — in number (3); its separate consideration would involve some details too technical to be presented here, and its proportion to the others — one out of a hundred — is not sufficient to give it importance as a mode of variation of the typical bar.

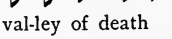
rapid movement but more ordered and governed than (2) and (3); while (4) is an arrest of movement for an instant; as if the torrent of metre flowed now into a broad pool, now into an eddy. From this point of view, grouping (3) with (2), and considering, as is actually the case, that (3) (for which there is no name in prosody) is so slightly differentiated from (2) as to be substantially the same bar; we have, in our hundred bars, of the form fifty bars; of the form forty-three bars; and of the form seven bars.

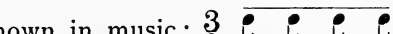
This then is a fair idea of the rhythm of *The Death of Byrhtnoth;* for the hundred bars given are thoroughly representative of the whole piece and the number seems large enough to render deductions reliable. The speech of Byrhtnoth which they include cannot fail to delight every ear: in truth I do not know where to look in English poetry, old or new, for a succession of words which make more manly music as mere sounds.

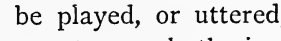
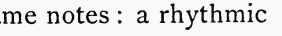
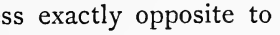
The form of bar 

which occurs so often in the foregoing scheme is by no means given as the only manner of noting those sounds, and perhaps may not suit the actual movement of many voices. It offers an interesting point of comparison with exactly similar modern forms, where in a 3-rhythm poem we often find a bar consisting of four sounds. For example: in Tennyson's *Charge of the Light Brigade,* the four sounds "val-ley of death" are placed in a bar of $\frac{3}{8}$ time, thus:



Instead, however, of delivering this second bar as 

, many voices would make a distribution of time-values among the four sounds which would be represented by the following formula of notation well-known in music: 

where the straight line drawn over the four notes indicates that they are to be played, or uttered, in the time of three of the same notes: a rhythmic device depending upon a process exactly opposite to that of the triole already explained, where  (for example) indicates that the three notes  are to be played in the time of two  .

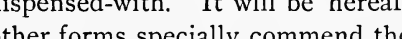
The method illustrated in

,

, seems generally preferable to the form

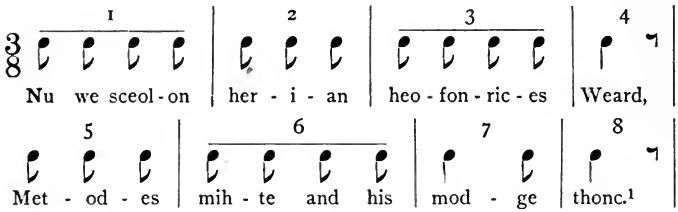
,

and would have been adopted in the foregoing scheme except for the desire to concentrate the student's attention upon the special purpose of the scheme and therefore to avoid all preliminary explanations that could be dispensed-with. It will be hereafter used, except when other forms specially commend themselves.

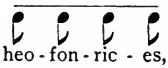
The rhythm revealed by the scheme given for Byrhtnoth's speech is the typic rhythm of Anglo-Saxon poetry, and its typic scheme  (representing the two typic simple forms of bar which,

alternating with each other, largely predominate in every poem) never varies from the beginning to the end of what we may call Anglo-Saxon poetry, though the number of bars to the line is occasionally different. This may appear in illustrative passages from the following poems, which cover four centuries: Cædmon's *Paraphrase*, 7th; *Beowulf*, 8th; *The Wanderer* (unknown date; possibly), 9th; the scheme already given from the *Battle of Maldon*, 10th.

From Cædmon (as preserved in King Alfred's Anglo-Saxon translation of Beda's *Ecclesiastical History*):

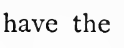


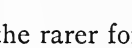
Though belonging more strictly to a monograph on Anglo-Saxon rhythm, it is worth while interrupting this series for a moment in order to call attention to a principle, illustrated in the bars marked 1 and 3 of this Cædmon scheme, which is of application in the proper delivery and notation of almost every line of Anglo-Saxon poetry. Considering first the bar number 3,

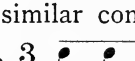


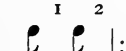
the word is a compound one, of "heo-fon" — which is *heaven* — and "ric-es," which is the genitive case of

[1] Nu we sceolon herian heofonrices Weard,
Now we shall praise (the) heaven-kingdom's Ward (i.e. guardian)
Metodes mihte and his modgethonc
(the) Creator's might and his mood-thinking (i.e. the thoughts of his heart).

"rice," *kingdom.* This genitive in es is the origin of our modern English possessive case, formed by the apostrophe and s. There can be no doubt — but the reasons cannot here be given — that this contraction of the possessive case prevailed in common speech a long time before it was indicated in writing,[1] — as indeed always happens: and hence a four-sound word like "heofonrices" (1 2 3 4) was, in the gleeman's oral reproduction, practically a three-sound word "heofonric's" — or, as it would be if "rice" had survived in this connexion, heavenric's — and should therefore have the notation 

in which it presents us with the simple typic bar of 3-rhythm, instead of the rarer form 

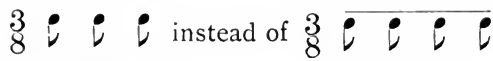
A process exactly similar converts bar number 1 of the Cædmon scheme 

into the same simple typic bar 

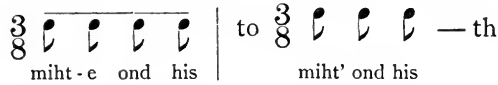
; for the word sceolon (sc here representing our modern sh) is the first person plural of the modern form *shall*, agreeing with "we" — "Nu we sceolon" = *Now we shall* — and just as in modern English we contract such a two-sound word as

[1] We begin to find similar ones indicated early in the 13th century, as for example in the Cuckoo-Song presently quoted where immediately after "bleteth" (bleateth) comes "louth" which is a one-sound contraction of the two-sound "lou-eth" or loweth (sc. the cow loweth after the calf, &c.). All through the Cuckoo-Song the liberty of making or not making such contractions, according as the rhythm may suggest, is apparent.

"swollen" into a one-sound word "swol'n," — or as in German verse schullen appears as schull'n, siehen as sieh'n, glühen as glüh'n, and the like — so there can be no doubt that in the excited utterance of the Anglo-Saxon gleeman "sceolon" would cease to be a two-sound word "sceol-on" and become a one-sound word "sceol'n,"[1] thus giving us the simple typic bar

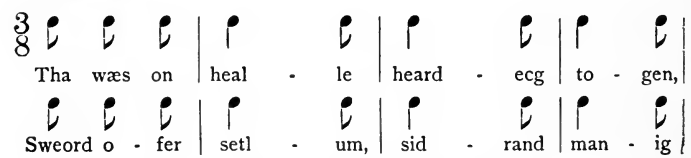


A further application of the principle which underlies both these processes — the principle of connected utterance, which drops out or slurs over so many unaccented sounds in every sentence of modern speech — would reduce bar number 6 in the Cædmon scheme, from

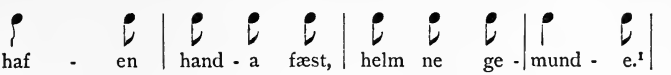


to — the typic simple form — by the well-known custom of eliding or slurring-out the last vowel of a word (here the e in "miht-e") before the first vowel of the next (here the o in "ond").

Proceeding, in the light of these developments, to note the later Anglo-Saxon rhythms: the following, from the great Anglo-Saxon epic of *Beowulf*, continues the same forms of $\frac{3}{8}$ bar which we find in Cædmon's *Paraphrase*,

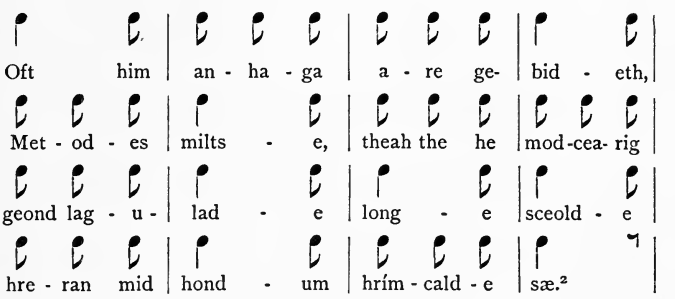


[1] Chaucer gives it as schulln: one syllable.



Where we perceive always the typic forms ♩ ♩ ♩ and ♪ ♩ prevailing.

Scheme of the opening lines of *The Wanderer:*



It is impossible to quote these opening thoughts of *The Wanderer* without calling attention to a profound mournfulness and gentle dignity which breathe subtly out of the melodious movement of the verse. Nothing could be more beautiful than the rhythmic play of this poem. Even those who understand no word of Anglo-Saxon must be deeply impressed with the tender sing which goes all along through the poem, when it is properly read aloud.

As the reader easily observes, it carries on the rhythmus of ♩ ♩ ♩ and ♪ ♩, so striking in the other poems.

It will afford some striking suggestions if we now

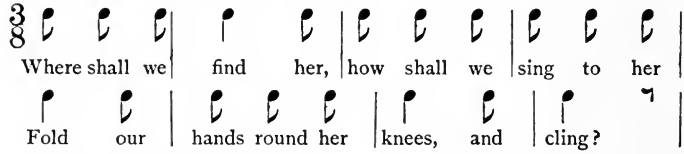
[1] There was in hall (the) falchion brandished,
Swords over benches, many a buckler
(was) high-hoven, fast in hand, helmet not minded.

[2] Often the Solitary prayeth for mercy,
— (for) God's compassion, — though he, mood-careful,
over the water-ways long-time should
stir with (his) hands the rime-cold sea.

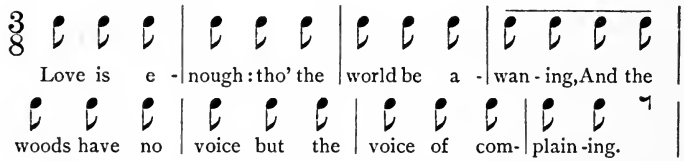
compare these very earliest rhythms of our language with the very latest: and for this purpose let the schemes of modern rhythm be next given, instead of at the last, leaving the intermediate schemes to be afterwards presented in their historical order.

For this purpose compare the following schemes, (1) from Swinburne's *Atalanta in Calydon*, and (2) William Morris's *Love Is Enough.*

From *Atalanta in Calydon:*



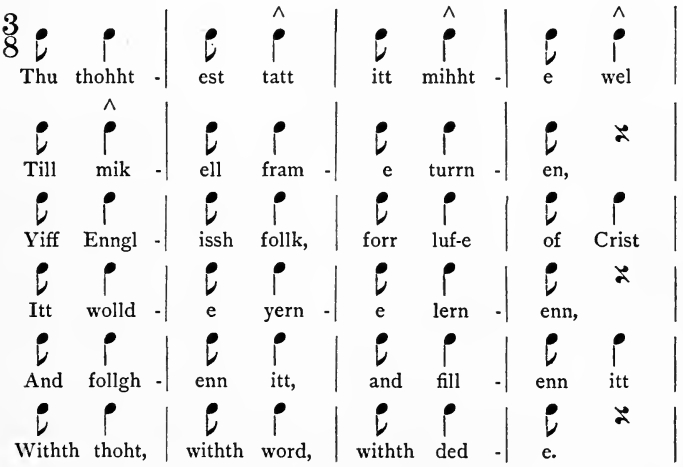
From *Love Is Enough:*



Nothing can be more suggestive than the evident tendency of these latest rhythms to return to the precise rhythmic forms of the fathers.

Resuming the historic order: after the purer Anglo-Saxon, of which specimens have been given from Cædmon, Beowulf, &c., up to the 10th century (the *Battle of Maldon* probably dates 993), take the following scheme from the *Ormulum*, a poem probably of the early part of the 13th century. Orm, or Ormin, the author, is addressing his brother in the beginning of the poem and recounting how his brother had thought that if he (Orm) would put "inntill Ennglissh" (into English)

the Gospel's holy lore (Goddspelless hallghe lare) it might well turn to mickle profit (frame) &c. The metre of this poem is most artfully arranged to carry out its 3-rhythm, and the flow of it is wonderfully fine. The final *e*'s must all be pronounced, as in Anglo-Saxon: for instance "wolld-e yern-e lern-en," where each final *e* makes a separate syllable, in sound much like the exclamation *eh*, or somewhat more open than the French mute *e* as read in poetry; except where, as in "forr lufe off Crist" (for love of Christ) the *e* of "lufe" is plainly slurred into the *o* of "off" making practically one sound.



It will be profitable, with the insertion of only a few occasional sounds of *eh* and *en* to replace the terminational *e* and *en*, to reproduce this rhythm by giving the modern equivalents, word for word, of the text, which should be read aloud, pronouncing the *eh* and *en* wherever they occur:

Thou thoughtest that it might (-eh) well
To mickle profit turn (-en)
If English folk, for love of Christ,
It would (-eh) gladly [1] learn (en),
And follow it and fill (-en) [2] it
With thought, with word, with deed (-eh):

a process exactly parallel with the modern French habit of reading their poetry in which the old custom of pronouncing the (now) mute-*e* is retained though it has long vanished from current speech.

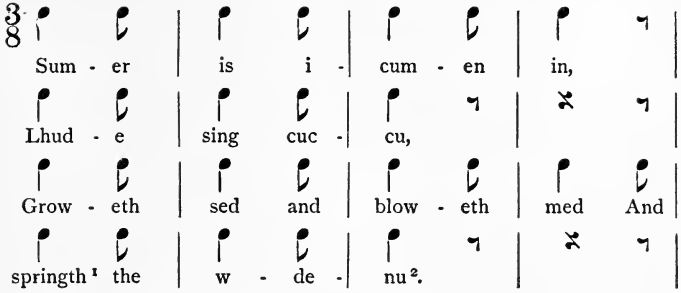
Take next a rhythmic scheme of the Cuckoo-Song, which may be a few years later in date. This bright spring-song is of special interest in the present connexion because the music to which its words are found set has a rhythm so exactly reproducing the typical rhythmic scheme of the poem that it is hardly necessary to do more than transcribe the notes of the music, disregarding the changes of pitch, in order to obtain the following scheme, — with the exception of a minute variation in one bar where the sound "in" is prolonged, in singing, during the time of the rest which would prevent its drawl in utterance.

On this account, as well as because the poem has pre-eminence as not only one of the first English songs but as the first found with the music to which it was sung,[3] the first four lines of the typic scheme are here given and then the music of the whole is added, with the accompanying words.

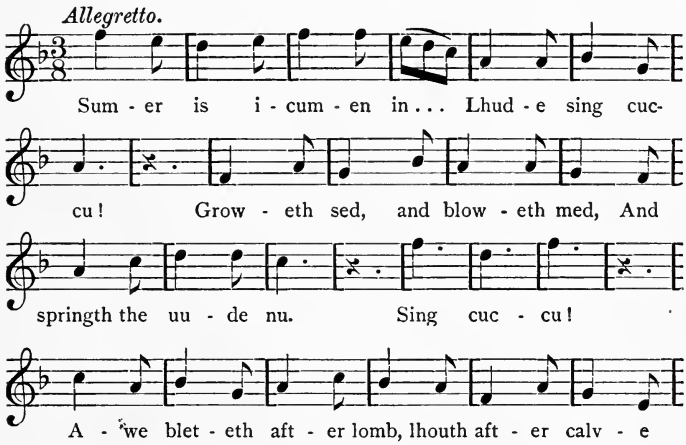
[1] The word in the text is yerne, i.e., *yearningly*.

[2] Fillenn itt, i.e., *ful*fill (-en) it.

[3] It was recovered from Harleian Ms. 978 in the British Museum, which seems to have been a monk's commonplace-book or *omnium gatherum*. Sir Frederic Madden dates it about 1240.



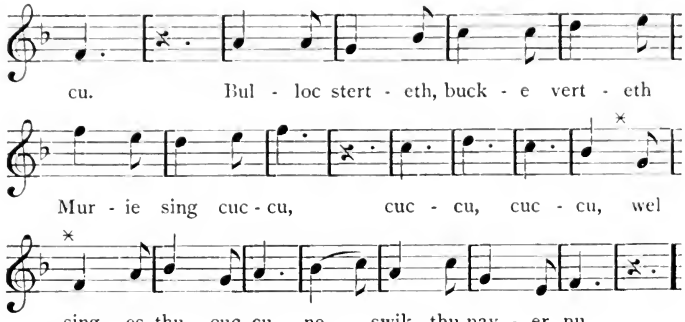
CUCKOO-SONG.[3]



[1] For spring*eth*; see the preceding remarks on contractions.

[2] Summer is (y-) come (-n) in,
Loudly sing, cuckoo!
Groweth seed and bloweth mead
And spring (e) th the wood (e) now.

[3] In the two bars marked with a cross near the end the words are assigned to the notes differently from the original, the monkish transcriber having been careless, as is apparent from his wholly gratuitous and unnecessary disregard of the ordinary custom, at this point. As for the pronunciation it may be sufficiently imitated, for all present purposes, by giving all the vowels long — except the *i* short as in modern *in*, and *e* much like long *a*, and pronouncing all the final *e*'s as separate syllables, like *eh*.



Sumer is icomen in,
Summer is come in

Lhude sing, cuccu!
Loudly sing, cuckoo!

Groweth sed, and bloweth med,
Groweth seed and bloweth mead

And springth the uude nu.
And spring (e) th the wood now.

Sing, cuccu!
Sing, cuckoo.

Awe bleteth after lomb,
Ewe bleateth after lamb,

Lhouth after calve cu.
Loweth after calf (the) cow

(*i.e., the cow loweth after the calf*).

Bulloc sterteth, bucke verteth,
Bullock starteth, buck verteth,

(*i.e. seeketh the green; French, vert: — but the word is not certainly this*)

Murie sing, cuccu!
Merrily sing, cuccu!

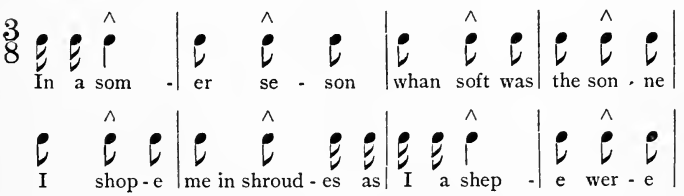
Cuccu, cuccu!
Cuckoo, cuckoo!

Wel singes thu, cuccu,
Well singest thou, cuckoo

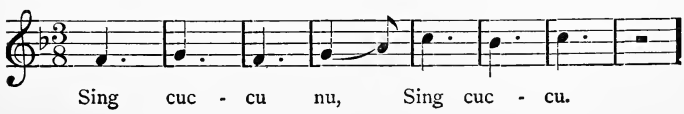
Ne swik thu naver nu.
Cease not thou never now.

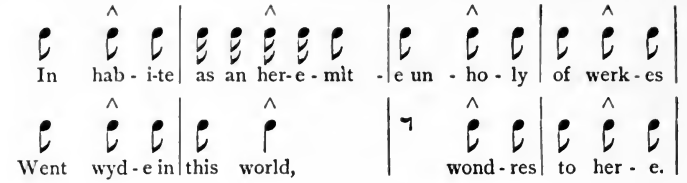
Here[1] the typic bar is the $\frac{3}{8}$ 𝅗𝅥 𝅘𝅥 | which we found to be one of the two predominant forms in Anglo-Saxon poetry.

Coming down from the 13th to the 14th century, next is a scheme of the four opening lines of *The Vision concerning Piers Plowman.* Probably no rhythm was ever so thoroughly misunderstood as the gentle and incessant sing which winds along through these alliterative fixed-points as a running brook among its pebbles. The reader will observe that we have here still the typic bar $\frac{3}{8}$ 𝅘𝅥 𝅘𝅥 𝅘𝅥 | overwhelmingly predominant in the poem, but with the rhythmic accent at the second time-unit of the bar instead of the first.

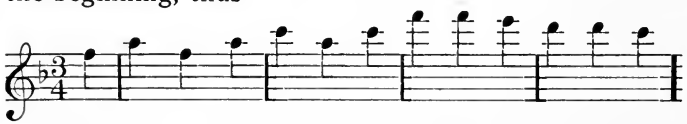


[1] This was sung as a part-song for four or six voices. As such it produces a delightfully outdoor and breezy effect. The method of singing it was as follows. The melody is of such a character that any four bars of it will harmonize with any other four. Therefore, taking three sopranos and either contralto or bass voice, the procedure is: first soprano sings first four bars alone: second strikes-in at fifth bar, singing from the beginning, and goes on with the first voice which is always four bars ahead of the second: third voice strikes-in on the ninth bar, singing from the beginning, and then goes on with the other two, in the manner of a catch or round. Meantime the contralto, or bass, sings all the time, over and over, the following *pes*, or burden, until the song is finished:

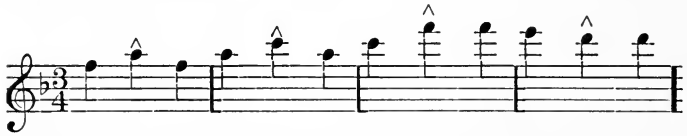




This is the rhythmus of the third movement in Beethoven's Seventh Symphony which succeeds the awful Heart-beat March of the second movement. It is conventionally written with anacrusis or unaccented note at the beginning, thus



but the more accurate method would be



if the music were, like the poem, in lines each of which begins with an unaccented sound.

An expression occurs in the *Palladis Tamia, Wit's Treasury*,[1] of Francis Meres, printed in 1598, concerning this rhythm of *Piers Plowman* which is very remarkable as betraying an appreciation of its true nature for which one would not look in the 16th century. Says Maister Meres (p. 156, line 24, of the NEW SHAKSPERE SOCIETY'S *Series IV, Part I, 1874*): "As Homer was the first that adorned the Greek tongue with true quantity: so *Piers Plowman* was the first that observed the

[1] The book so dear to all Shakspere students from its mentioning — and thus limiting the date of — several of Shakspere's plays.

true quantity of our verse without the curiositie of rime." This utterance of Meres becomes all the more curious if we compare it with Puttenham's remark in *The Arte of English Poesie* upon "that nameles who wrote the *Satyre* called Piers Plowman"—as he terms Langland[1] in another place. . . . "His verse" (says Puttenham) "is but loose metre, and his termes hard and obscure, so as in them is litle pleasure to be taken."

This outline of our rhythmic history has now reached a most notable point as we advance from Langland to Chaucer. Although Langland and Chaucer were contemporaries and were writing their books at the same moment, yet Langland differs from Chaucer in such a way that he must be considered to terminate the ancient period, as clearly as Chaucer begins the modern period, of English poetry. Langland belongs with Aldhelm, Cædmon and Cynewulf; Chaucer with Shakspere, Keats and Tennyson. A cunning enough confirmation of this view crops-out in the citation just made from Puttenham. In the same chapter[2] in which he finds Langland such as in him "is litle pleasure to be taken" he finds Chaucer thoroughly delightful: a curious instance where, of two contemporary poets, the one is so archaic in rhythm and speech that neither is understood by a critic of his own tongue only two centuries off, while the other is so modern in both that he is not only understood but freely enjoyed by the same critic.

Not that we get out of 3-rhythm, at all, when we leave Langland and the ancients for Chaucer and the

[1] Or Langley: see Professor C. H. Pearson's paper in The North British Review for April, 1870.

[2] Chapter XXXI; *v. pp.* 75–6; of *The Arte of English Poesie.* Arber reprint, Murray & Son. London, 1869.

moderns: that maintains its hold undisturbed. But in Chaucer we come for the first time upon a special form of 3-rhythm which thereafter prevails with almost unbroken uniformity throughout English poetry. It has been customary to refer the origin of English blank verse to Surrey's translation of part of the Æneid in the earlier half of the 16th century, in which that noble poet used lines consisting of five bars, the typic bar having the form ◡ ^ ◡ –. But this is Chaucer's rhythmus: all the Canterbury Tales in verse — except the comical *Sir Thopas* and the surely spurious *Coke's Tale of Gamelyn* — are written in a rhythm whose description merely repeats that given above for Surrey's rhythm, — namely, lines of five bars each, the typic bar having the form ◡ ^ ◡ –. It is true that Chaucer used rhyme, while Surrey did not: and in this respect Surrey's verse was "blank," as opposed to Chaucer's: but it was not blank as opposed to Cædmon's and Cynewulf's; in fact English poetry for its first five hundred years was without rhyme[1] — that is, was blank verse. Surrey therefore was neither the first, by nearly a thousand years, to discard rhyme in English verse; nor was he the first, by more than a hundred and fifty years, to use the line of five | ◡ ^ ◡ – |'s.

Inasmuch as this form | ◡ ^ ◡ – | — to which we now come in the Chaucer scheme — corresponds to the classic iambus, which is described as a short (◡) before

[1] Except as heretofore noted. Observe, further, the error of Meres in affirming that *Piers Plowman* is the first English poem which observes the true quantity of our verse "without the curiositie of rime."

a long ( ), let us, for the sake of a convenient and sufficiently precise term, always hereafter designate this as the iambus: the reader always understanding that when the word "iambus" is used, it is equivalent to the words: "one bar of the typic form $\frac{3}{8}$ ⏑ – |."

And, to acquire beforehand another convenient term which belongs to the consideration of the fourth order of rhythm — the line-group, or metre — let us designate a line which consists of five bars as a line of 5.

In this terminology, therefore, the lines both of Chaucer and of Surrey may be conveniently called iambic 5's so far as the rhythm is concerned: though the term "blank verse" has come to be exclusively limited to that rhythm when it is used without rhyme.

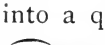
The reader is therefore to understand that when Surrey is said to be the father of blank verse, nothing more can be meant than that he first used without rhyme a *rhythm* which was at least as old as Chaucer.

The typic scheme of the first four lines in Chaucer's *Knyghtes Tale* (the first of the *Canterbury Tales*) is this:

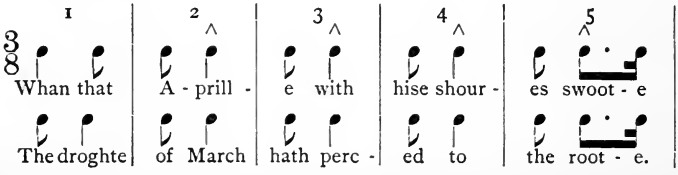
1	2	3	4	5
Whil-om	as old -	e sto -	ries tell -	en us
There was	a duc	that hight -	e The -	se - us
Of Atth -	en-es he	was lord	and gov -	er - nour
And in	his tym -	e swich	a con -	que - rour.[1]

[1] Text taken from Ellesmere Manuscript, six-text edition, Chaucer Society.

Two points in connection with this scheme are of interest.

(1) Let the student observe the process of transition from the pure Anglo-Saxon rhythm, through Langland's, to Chaucer's. The Anglo-Saxon presented us with the typic ; Langland presents us the same, only the accent has been transferred to the second time-unit instead of the first ; while Chaucer presents the same as Langland, only the last two of the three eighth-notes have joined together into a quarter-note — as if in music we should write where the slur ⁀ binds together the two sounds  into one sound precisely equivalent to — so that in Chaucer we have instead of , the form, .

The second point is connected with this same transition, and concerns the very interesting link of it which we find in the resemblance of the last bar in most of Chaucer's lines to the last bar in nearly all of Langland's lines. In Chaucer, the last sound of almost every line is an *e* (the lines quoted from the Knight's Tale happen not to be such lines), whose rhythmic value is expressed in the fifth bar of each line of the following scheme noting the first two lines of The Canterbury *Prologue:*



The reader may catch very nearly the exact sound of this *e* which terminates so many of Chaucer's lines by getting any intelligent Frenchman to read aloud a French poem and observing a certain sound of the final *e*'s which, though mute in prose, the French retain as a syllable in poetry. It will be observed that this sound is often scarcely more than that remission of breath with which one relieves the lung when, in speaking, the words end before the breath is expended which has been accumulated in the lung for the purposes of utterance. When an American, in impatiently trying to remember a word in the midst of discourse says, for example, "I was walking down the – eh — the – eh — the Hofsstrasse when I met &c.," the *eh*'s have almost the sound of the French *e* and are often indeed a mere remission of breath to relieve the lung. It would seem that such a necessity in some way suggests that shape of the buccal cavity which results in the tone-color of the French mute *e* as given when rather slurred in reading French poetry: a tone-color perhaps better represented by the sound of our short *u* in "but," somewhat finically pronounced, than any other in our language.

Now, that this final *e* at the end of Chaucer's lines was mainly a sort of audible remission of the breath having the rhythmical effect noted in the last scheme from Chaucer seems to be clearly the result of the following considerations:

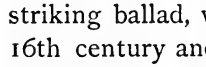
(1) that Chaucer evidently did not intend this final *e* at the end of each line to have the full force of a syllable, else he would have used more of other terminations than *e* in the same place: or in other words his tendency to confine the sound to that of the final *e*, which was already becoming a sound that could be slurred at

pleasure,[1] shows a peculiarity in that sound which must have suited his rhythmic purpose;

(2) that this rhythmic purpose did not demand a full syllable at the end of the bar, as shown by the large numbers of such lines as the four quoted from the Knight's Tale which have no final *e;*

(3) that the pronunciation and rhythmical effect herein given harmonize all these kinds of lines, for the lines not terminating in a final *e* would admit a similar audible remission of the breath, — as we hear it used by many readers of the present day;

(4) that thus the original rhythmic intent would be consistently carried out in every line, and would reveal itself as merely a sort of reminiscence of the final bar in each line of Anglo-Saxon poetry and particularly in each line of *Piers Plowman.*

Coming down from Chaucer, and skipping the 15th century during which, if one excepts a few passages of Lydgate and Gower, no English poetry was made except among the Scotch makers — who however carry out the 3-rhythm *modus* without exception — the following very striking ballad, which belongs to the early part of the 16th century and which I find among the Bright Ms. published by the Shakspere Society in 1848, gives us the genuine old Anglo-Saxon rhythmus of the two forms  with almost a typic regularity of alternation. I give the scheme of the first two lines and then the poem nearly entire.

[1] As seems to be the net conclusion resulting from the careful and scholarly labors of Mr. Ellis and Professor Child with regard to the general use of the final *e* in Chaucer. See Part II, *Early English Pronunciation,* by Mr. A. J. Ellis (published by both the Chaucer and New Shakspere Societies), which contains an admirable summary of Professor Child's paper on this subject.

SONG OF EVER AND NEVER.

. . . . .

Ever in graffyng and never in growing,
Ever in plowing and never in sowing,
Ever in repyng and never in mowinge,
Ever in trowing and never in knowinge.

Ever full gorged, and never from[1] tappynge,
Ever at sylence and never from clappynge,
Ever a-cold and never from wrappynge
Ever in hoping and never in happyng.

Ever in travell[2] and never at byrth,
Ever in smylyng and never in myrth,
Ever in swellyng and never slack gyrth,
Ever in purchace and never ought worth.

Ever at hand and never at wyll,[3]
Ever styk fast and never stand styll,
Ever cum toward and never cum tyll,[4]
Ever a clarke and never can skyll.

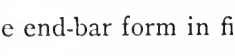
Syns ever and never shall never have end,
Good is it ever never to offend;
For ever shall never kepe fawtes in safe mend
But ever shall scourge fawtes that never amend.

[1] "From," in the sense of *away from;* "never from tappynge" = never free from the necessity of tapping, that is, always at it.

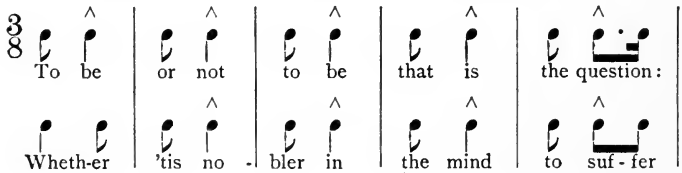
[2] Travail.

[3] Pleasure (for example) ever near by (at hand) but never quite reachable (at will).

[4] Tyll = *to* = *up to*.

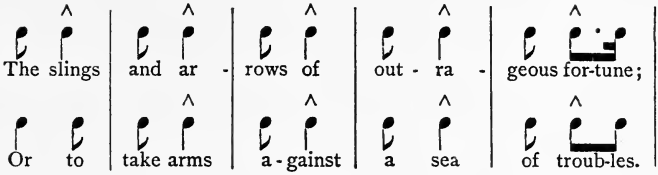
Coming from the early part of the 16th century to the early part of the 17th: if we take the following four lines from *Hamlet* we will be presented not only with a further illustration of 3-rhythm but with an interesting illustration of the survival through our blank verse of the end-bar form in final *e*—  —just now discussed in Chaucer. Such lines occur with great frequency in Shakspere, and with the greatest frequency in Fletcher.[1] On comparing the final bars in each line of the following scheme of the opening lines in the Hamlet soliloquy with that just given of the opening lines in the Canterbury Tales *Prologue*, we may see the historic connection and rhythmic reason of the so-called "double-ending" or "feminine-ending" lines in Shakspere which have in modern times acquired so much interest, not only as affording another rhythmic test of his growth as an artist but as offering means for nice discrimination between Shakspere's and Fletcher's parts (for instance) in the play of *Henry VIII.*, or that of the *Two Noble Kinsmen.*[2]

SCHEME FROM HAMLET'S SOLILOQUY.



[1] But Fletcher uses them very differently from Shakspere. See special treatment of blank verse, end of this chapter.

[2] For interesting discussions of both plays from this and similar points of view, see *Transactions of the New Shakspere Society* for 1874, series I.

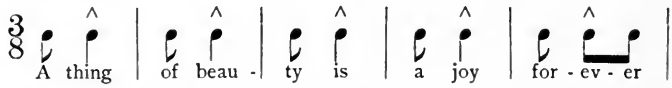


In connection with this scheme it may be remarked once for all that in reading-off every such notation of lines from an acting-play, it must always be remembered that the long pauses and stage-silences which occur in stage-delivery — especially in the stage-delivery of such a soliloquy as this of Hamlet's — will necessarily interrupt the continuity of the movement, and that the scheme can therefore only claim to be a scheme of that rhythmic intention upon which the writer projected his work and which in its general type only is carried in the hearer's mind throughout the progress of the play. For example: after the word "question" at the end of the first line in the foregoing soliloquy the actor would doubtless be silent for some time, in the meditative blank of thought which suits Hamlet's unquiet leaping from one idea to another here; but in the rhythmic intention this line is run-on to the next, and artfully run-on, the unaccented syllable "-tion" of "question" allowing an effective change of the accent to the first sound of "whether" in the next line.

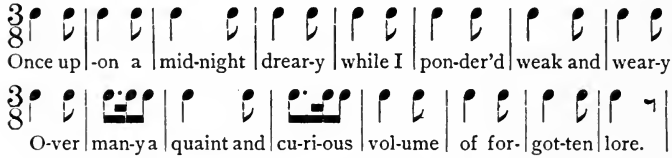
The four lines just given present an unusual example of the occurrence of double-endings four times in succession.

Passing Milton with the single remark that *Paradise Lost* is written in the same typic form of 3-rhythm with Shakspere's plays; and giving a scheme of only the first line of *Endymion* because it presents us with an-

other instance of the double-ending in blank verse just discussed,

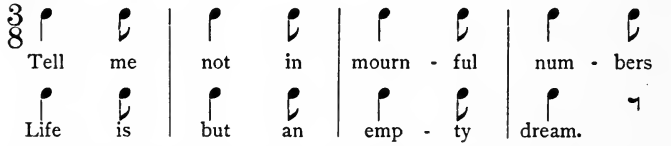


we may come to Poe's *Raven* which offers a new treatment of 3-rhythm so far as metre (or the line-group) is concerned, but consists entirely of the form so familiar in Anglo-Saxon poetry, 3/8 | .

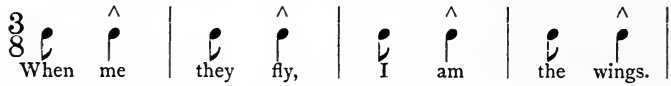


The *Idylls of the King* is in the typic form of 3-rhythm which is specially named blank verse; though the special treatment of it is such as to make a wholly different music from Shakspere's.

Longfellow's *Psalm of Life* is in the same form of 3-rhythm as Poe's *Raven* up to the management of the line-group, which is quite different:



Emerson's *Brahma* is in a different form of 3-rhythm:



Schemes from Swinburne's *Atalanta in Calydon*, and Morris's *Love Is Enough*, all illustrating the unbroken

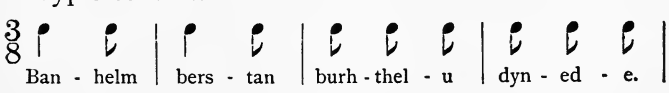
employment of some form of 3-rhythm, have been already given.

So that we find the English love for 3-rhythm not only unabating after more than twelve hundred years' use of it, but the most modern English verse tending into the very specific forms of 3-rhythm used by our earliest ancestral poets.

As exhibiting not only the strength of our passion for 3-rhythm but the subtle tenacity with which even specific forms of it have associated themselves with certain classes of poetic ideas, perhaps the following five poems may fitly terminate this brief review of our rhythmic history. I have selected out of the body of English poetry five battle-songs, written at intervals of three centuries apart, namely: a scene from *The Fight at Finnesburg*, dating before the 7th century; a battle-scene from the *Death of Byrhtnoth*, 10th century; a battle-scene from Layamon's *Brut*, 13th century; a battle-ballad of Agincourt, 16th century; and Tennyson's *Charge of the Light Brigade*, 19th century. Surely no one can regard without interest this succession of manful songs, all moving in exactly the same verse-beat and carrying us on their rhythmic movement, by three-century leaps, through twelve centuries of English verse.

SONG OF THE FIGHT AT FINNESBURG.

Typic scheme.



Hleothrode tha heathogeong cyning:
"Ne this ne dagath eastan, ne her draca ne fleogeth,

ne her thisse healle horn naes ne byrnath;
fugelas singath,
gylleth graeg-hama, guth-wudu hlynneth,
scyld scefte oncwyth; nu scyneth thes mona
Wathol under wolcnum, nu ariseth wae-daeda
the thisse folces nith fremman willeth;
Ac onwacingath nu, wigend mine,
habbath eowre land, hicgeath on ellen,
Winnath on orde, wesath anmode.

. . . . . .

Tha aræs manig
gold-hroden thegn, gyrde him his swurde.

. . . . . .

Tha wæs on healle wæl-slihta gehlyn,
sceolde nalæs bord genumen handa,
ban-helm berstan, burh-thelu dynede,
oth æt thære guthe Garulf gecrang,
ealra ærest eorth-buendra,
Guthlafes sunu; ymb hyne godra fela hwearf
lathra hræw; hræfen wandrede,
sweart and sealo-brun; swurd-leoma stod
swylce eal Finns burh fyrene wære.

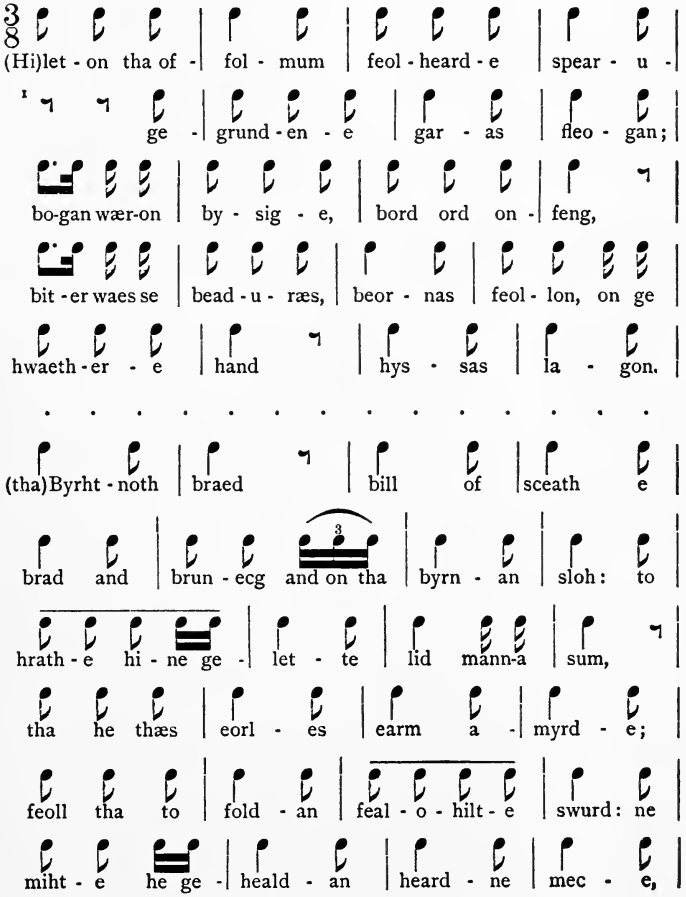
. . . . . .

Hig fuhton fif dagas, swa hyra nan ne feol
driht-gesitha; ac hig tha duru heoldon.[1]

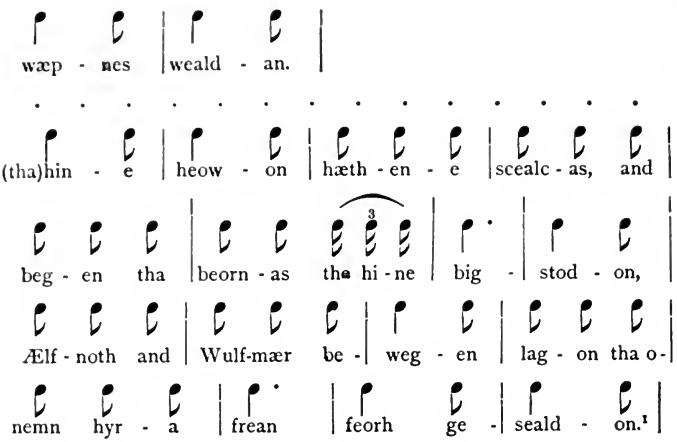
[1] Cried aloud, then, war-young king: "this dawneth not from east, nor here dragon flieth, nor here of this hall light burneth; birds sing, chirpeth cricket, war-wood soundeth, shield answereth shaft; now shineth the moon wandering under skies, now arise woe-deeds that this folk's quarrel will perform. But wake ye now, warriors mine! hold your lands, think upon valor, strive in battle-line, be one-minded." . . . Then arose many a gold-adorned thane, girded him with his sword. . . . Then was in the hall slaughter's din, might not shield be taken in hand, bone-helm burst, house-floor dinned, until in the fight Garulf fell soonest of all earth-dwellers, Guthlaf's son; about him a crowd of many good foes' corpses; raven wandered, swart and sallow-brown; sword-light stood, as if all Finn's burgh were a-fire. . . . They fought five days, so none of the companions fell; but they held the door. . . .

BATTLE-SCENE FROM THE DEATH OF BYRHTNOTH.

Typic scheme.

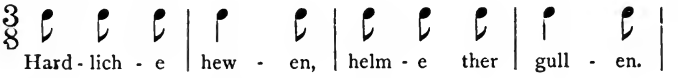


[1] Probably a word omitted in the MS.



BATTLE-SCENE FROM LAYAMON'S BRUT.

Typic scheme.



Togadere heo tuhten and lothlice fuhten;
hardliche hewen, helme ther gullen,
starcliche to-stopen mid steles egge.
Alle dæi ther ilæste fæht mid tham mæste,

[1] "They let fly from their hands the file-hard spears, the sharp-ground javelins; bows were busy, brand met buckler, bitter was the battle-rush, warriors fell, on every hand men lay."

. . . . . .

(The battle goes on: after a while Byrhtnoth, now in bad condition, is striking at a pirate who has run over to rob a fallen chieftain of his gold rings and bracelets.)

"Then Byrhtnoth drew from sheath his sword, broad and brown-bladed, and smote on his (the pirate's) corselet: but one of the pirates too quickly hindered him, and maimed the chieftain's arm; fell then to earth (his) yellow-hilted sword, he might no longer hold the brand, (he might no longer) wield weapon." . . .

(Byrhtnoth is surrounded: he calls over to his men from the midst of his enemies, speaks a few cheerful words, offers up a short manful prayer to heaven; and then)

"The heathen hewed him to pieces and both the warriors that stood by him. Ælfnod and Wulfmær lay together: by the side of their prince they gave up their life."

a thet thustere niht to-dælde heore muchele fiht.
Læien a ba halve cnihtes to-hewen.

. . . . . .

Ther was muchel blod gute; balu ther wes rive;
brustlede scæftes, beornes ther veollen.[1]

THE BALLAD OF AGINCOURT, OR THE ENGLISH BOWMAN'S GLORY.[2]

Typical scheme.

Agincourt, Agincourt!
Know ye not Agincourt?
Where English slue and hurt
All their French foemen?
With our pikes and bills brown,
How the French were beat downe,
Shot by our bowmen.

Agincourt, Agincourt!
Know ye not Agincourt,
Never to be forgot
Or known to no man?
When English cloth-yard arrows
Kill'd the French like tame sparrows,
Slain by our bowmen.

Agincourt, Agincourt!
Know ye not Agincourt,
Where we won field and fort?

[1] Together they came and bitterly fought; hardly hewed, helms there resounded, starkly to-stepped against steel's edge. All day there lasted fight amid the wood, until darkening night brought-to their muckle fight. Lay about knights in half to-hewn.

There was muckle blood; bale there was rife; bristled shaft, men there fell.

[2] See Appendix to Vol. II., Messrs. Hales & Furnivall's *Bishop Percy's Folio Manuscript:* p. 595.

French fled like women
By land and eke by water;
Never was seen such slaughter
Made by our bowmen.

Agincourt, Agincourt!
Know ye not Agincourt?
English of every sort,
High men and low men,
Fought that day wondrous well as
All our old stories tell us,
Thanks to our bowmen.

Agincourt, Agincourt!
Know ye not Agincourt?
Either tale or report
Quickly will show men
What can be done by courage,
Men without food or forage,
Still lusty bowmen.

Agincourt, Agincourt!
Know ye not Agincourt?
Where such a fight was fought
As, when they grow men,
Our boys shall imitate,
Nor need we long to waite;
They'll be good bowmen.

Agincourt, Agincourt!
Know ye not Agincourt,
Where our fifth Harry taught
Frenchmen to know men?
And when the day was done
Thousands there fell to one
Good English bowman.

Agincourt, Agincourt!
Huzza for Agincourt!
When that day is forgot

There will be no men.
It was a day of glory,
And till our heads are hoary,
Praise we our bowmen.

Agincourt, Agincourt,
Know ye not Agincourt?
When our best hopes were nought,
Tenfold our foemen,
Harry led his men to battle,
Slue the French like sheep and cattle:
Huzza our bowmen.

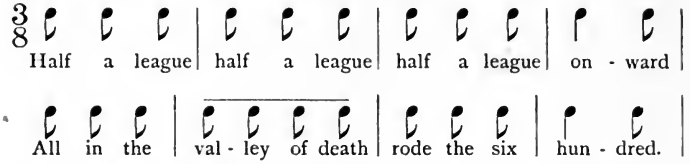
Agincourt, Agincourt!
Know ye not Agincourt?
O, it was noble sport!
Then did we owe men:
Men who a victory won us
'Gainst any odds among us:
Such were our bowmen.

Agincourt, Agincourt!
Know ye not Agincourt?
Dear was the victory bought
By fifty yeomen.
Ask any English wench,
They were worth all the French;
Rare English women.[1]

The rhythm of our last battle-song, *The Charge of the Light Brigade*, has already been illustrated with a partial scheme, so that it will not here be necessary to give more than a reference to that, — for the purpose of illustrating how finely Tennyson has carried-on the ancient battle-rhythmus of the fathers, — and to cite the reader to the poem itself for further comparison.

[1] Collier changes this "women" to "bowmen."

CHARGE OF THE LIGHT BRIGADE.



BLANK VERSE, OR THE ENGLISH HEROIC RHYTHMUS.

Blank verse — as has been already stated in another connection — means, in its primary sense, any verse which does not rhyme; but the term has come to be applied to a particular sort of verse which does not rhyme, namely, 3-rhythm of the typic form , five such bars constituting the line-group.

It is often called, also, the English "heroic measure," because the great English poems have been written in it, — poems which though not strictly "heroic," bear the same relation to our body of literature which the strictly heroic poems of other languages bear to theirs.

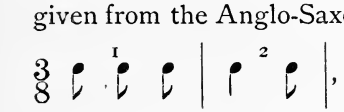
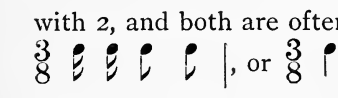
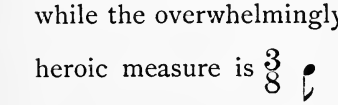
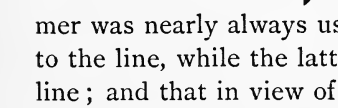
Although both these terms — "blank verse," and "heroic measure" — have acquired such currency that they are useful, the student will find it profitable to remember always, in using them or hearing them:

(1) that English verse was mainly blank[1] — that is, unrhymed — for about the first five hundred years of its existence:

(2) that all the essential rhythmus of blank verse is found in Chaucer (as heretofore explained), and that when Surrey is called the father of blank verse on ac-

[1] See the rhyming poem in Part III., and occasional rhymes in other poems.

count of his employment of it in his partial translation of the Æneid, all that can be meant is that he disused rhyme in a rhythm which was well-known ;

(3) that the term "English heroic measure" as applied to blank verse can apply only to our poetry since Chaucer: before whom, for several centuries, the English heroic measure was a very different form of 3-rhythm, namely, the form seen in the schemes already given from the Anglo-Saxon poem *The Battle of Maldon*,  , in which the form 1 alternates with 2, and both are often replaced by bars of the forms  , or  , or other similar varieties, while the overwhelmingly prevalent bar in the modern heroic measure is  : that moreover the former was nearly always used in line-groups of four bars [1] to the line, while the latter has always five bars to the line ; and that in view of these differences it would be at least an intelligent discrimination to use two terms, — "ancient heroic measure" and "modern heroic measure," — the ancient including our verse from Cædmon to Langland inclusive, and the modern beginning with Chaucer who in the Canterbury Tales uses the modern heroic measure with rhyme while Surrey used it without rhyme.

There are two circumstances which give such importance to the form of rhythm just described as blank verse, or the modern heroic measure, that it must claim

[1] Sometimes an arrangement of six bars to the line is evident: and sometimes the intention is not clear: but the texts are often not reliable, from various causes.

special study in the science of English verse. These circumstances are as follows.

(1) From any stand-point commanding a large view, one may almost say that English poetry since Chaucer has been written in this form. *Gorboduc* (or *Ferrex and Porrex*), the first English tragedy; Shakspere's Plays, Marlowe's, the English drama, nearly; Milton's Paradise Cycle, Keats's *Endymion*, Wordsworth's *Excursion*, Tennyson's Arthurian Cycle; are in blank verse. And if we should add to these the great poems which have been written in the same form with the addition of rhyme — which we might well do, from a rhythmic point of view, since the rhyme really does not affect the rhythm of blank verse in any other way than to give the ear one more series of rhythmic co-ordinations, thus making the tissue of rhythm merely richer, but no whit different in fibre — we could increase this list with Chaucer's *Canterbury Tales;* several of Chaucer's short poems; Spenser's *Fairy Queen;* the Scotch poetry of the late 15th and early 16th centuries; all the infinite treasure of English sonnets — Surrey's, Wyatt's, Constable's, Griffin's, Daniel's, Drayton's, Watson's, Sidney's, Drummond's, Habington's, Spenser's, Shakspere's, Carew's, Wordsworth's, Keats's, Mrs. Browning's, Gilder's; and a large number of shorter poems and songs. In short, one may say that the *corpus* of English poetry since the last quarter of the 14th century is written in this form.

(2) Being thus generally the rhythmic genius of modern English poetry, the form $\frac{3}{8}$ has acquired special interest in quite recent times through certain pecliarities of it which have been revealed by

the analysis of Shakspere's verse and which appear to characterize periods of his life and artistic growth in such a way as to afford a basis for an arrangement of his plays in the order in which they were written, — or at least in such a way as to afford a most valuable system of tests and counter-checks to arrangements based upon other evidences.

These two considerations taken together suggest that our special treatment of blank verse may be made more interesting than if it were a purely formal discussion by grouping all the phenomena of this form about the characteristic methods in which Shakspere used it. Such a treatment need be, indeed, no less than exhaustive. For Shakspere's art in the management of blank verse was truly miraculous, and there is perhaps no technical possibility of music in this form which may not be illustrated from his writings. Of course, to discuss all these possibilities as they appear in Shakspere would alone require a monograph quite as large as the present volume; and, inasmuch as the principles already stated should now enable every student to interpret all the plainer secrets of Shakspere's art without difficulty, the present treatment may be confined to (1) those points about which the most remarkable misconceptions have been entertained and (2) those which have furnished material for the tests of chronology just now mentioned.

These points may all be comprised under the following heads:

Shakspere's use of the rest in blank verse;
" " the run-on and end-stopped line " " "

Shakspere's use of { the double-ending or feminine-ending line } in blank verse;
" " { the weak-ending line } " " "
" " the rhythmic accent " " "

SHAKSPERE'S USE OF THE REST.

Nothing can be more remarkable than the confidence with which English nursery-songs and proverbial expressions count upon the rhythmic perceptions of the people, as contrasted with the timidity of minor poets and the forgetfulness of commentators in this particular. The most complex rhythms of our language — the rhythms which rely most on the hearer's or reader's ear to replace lacking sounds with rests of the right time-value, to make one sound very long and others very short, to run-on or end-stop the lines, and the like — are to be found in Mother Goose and in the works of our greatest poets. It is in the verse of those who must be classed between these limits that we find those rigid and inexorable successions of iambus to iambus, of end-stopped line to end-stopped line, and the like, which betray either the writer's fear that his rhythmic intention might not be understood or the limitations of his rhythmic intention itself.

It is only an extension of the same remark to say that music is almost entirely fearless in this respect, and the rudest music almost as much so as the finest. I have heard a Southern plantation "hand," in "patting Juba" for a comrade to dance by, venture upon quite complex successions of rhythm, not hesitating to syncopate, to change the rhythmic accent for a moment, or to indulge in other highly-specialized variations of the current

rhythmus. Here music, let it be carefully observed, is in its rudest form, consisting of rhythm alone: for the patting is done with hands and feet, and of course no change of pitch or of tone-color is possible.

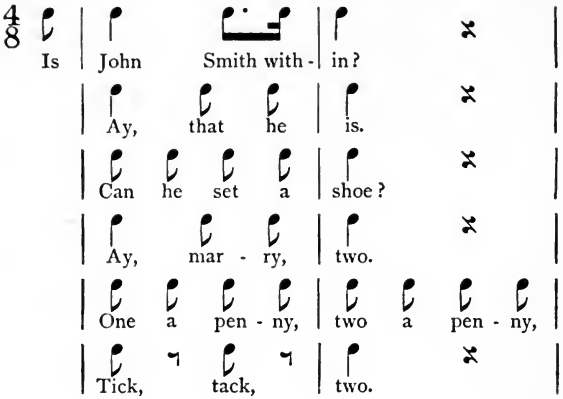
In considering Shakspere's use of the rest we shall find these facts of the utmost importance. Approached from the direction of music and of the folk-song or nursery-rhyme, the problems which have been explained sometimes as licenses, sometimes as irregularities, sometimes as faults of stupid printers in wrongly arranging the lines, sometimes even as corruptions of the text, will mostly be seen to resolve themselves simply into a great artist's use of his rhythmic materials with a freedom founded upon the rhythmic practices of the fathers and the rhythmic perceptions of children and common people.

A single illustration from Mother Goose, with one from the negro's patting, will supply us with a precisely-noted formulation of the facts just stated which we can then apply in the analysis of Shakspere's supposed peculiarities in this particular.

Let any one listen to a child reciting this passage out of Mother Goose:

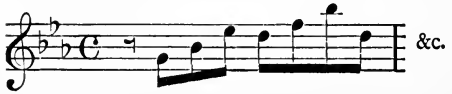
> Is John Smith within?
> Ay, that he is.
> Can he set a shoe?
> Ay, marry, two.
> One a penny, two a penny,
> Tick, tack, two.

The rhythmic movement of the child's utterance is as follows:

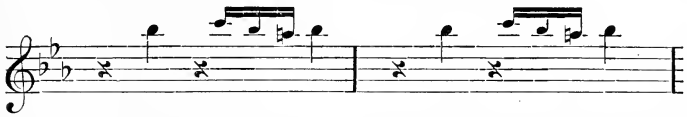


An examination of this scheme will show that the child's rhythmic sense has here arranged a series of time-values, both for sounds and silences (rests), which presents considerable complexity. Let the student observe particularly the rests which have been supplied by the child between the words, and upon which the whole rhythm depends.

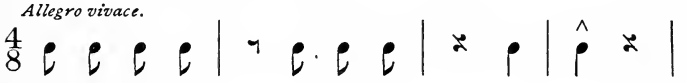
Here we see a rhythmic intention based upon the occurrence of rests within the body of the line. These rests happen to occur on unaccented sounds in the bar: but it is important to notice that rests may occur at the place where the accent belongs, and that this is frequently resorted-to in music to produce striking rhythmic effects. To take an example from the most cultivated music and enforce it with one from the rudest form of that art: in Haydn's "Queen of France" symphony the slow movement has a flute obligato at one point, of which the first strain commences:



while the second strain has a rest at every accented point of the bar throughout, each bar being of the form



On the other hand, every one who has noticed a Southern negro's "patting" will have been apt to hear an effect of the same nature as in Haydn's movement, produced by omitting the stroke, of foot or of hand, which the hearer expects to fall on the accented note at the first of the bar, thus:



and similar forms.

These instances might be indefinitely multiplied; but they will surely suffice here to authorize us in formulating the assertion that:

In popular poetry, and in the crudest as well as the most refined music, a rest may supply a sound not only in the body of the line or phrase but even on the accented place of the bar.

Now, just as Haydn uses the rhythmic device of the negro, so Shakspere uses the rhythmic device of the nursery-rhyme. Let us then apply the principle just formulated to the interpretation of certain lines in Shakspere's plays which have been accounted for very variously by various commentators.

The following line, for example — 117, in *Measure for Measure*, Act II. Scene 2 — has occasioned much perplexity:

Than the soft myrtle; but man, proud man.[1]

[1] Delius text; same in the first folio.

Regarded from the stand-point of well-known procedures in music, this line offers no difficulty. If we now analyze the means by which the rhythmic intention is here discovered and verified, the student will have a mode of procedure set before him for application in all future cases of doubt; and if we find not only that this rhythmic intention is for the reader to supply a rest in the body of the line, but that many of Shakspere's lines exhibit a similar intention for the purpose of producing a clearly-defined correspondence between rhythm and idea, it may surely be claimed — in view of the principle just now developed — that Shakspere is simply employing the common rhythmic devices of ruder poetry just as Haydn and Beethoven employ those of ruder music, and that it is as incorrect to call the one an "irregularity" or a "license" as it would be to call the other so.

Our analysis may be comprehended in the following four propositions.

(1) The accentual construction of the line

Than the soft myrtle; but man, proud man

so limits its possibilities that the reader is forced to supply a quarter-rest immediately after the syllable "-tle" in "myrtle," as by the following scheme:

(2) This suggestion to the reader is instantly con-

[1] The familiar Shaksperean beginning of a line with instead of the typic : presently treated in full under the head of Shakspere's Use of the Rhythmic Accent.

firmed by the fact that the semicolon — which is a *logical* rest — appears at the very point where the *rhythmical* rest falls, namely just after the "-tle" in "myrtle."

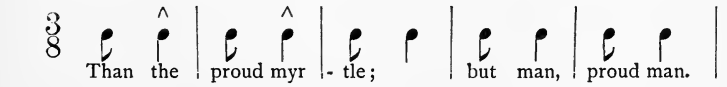
(3) The reader's assurance becomes doubly sure when he finds that the context shows a movement of idea which is strikingly embodied in this special movement of rhythm, as is always the case in Shakspere.

(4) And finally investigation reveals that it is really a habit with Shakspere to intensify just such antitheses as occur here in the ideas with just such a rest to be supplied at the place of an accented note, — wherein, indeed, he only carries out the unconscious habit of every ordinary reader or speaker of English.

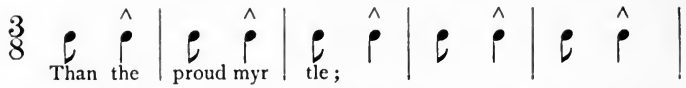
To examine these propositions separately:

(1) If we construct the scheme of a typic line of blank verse:

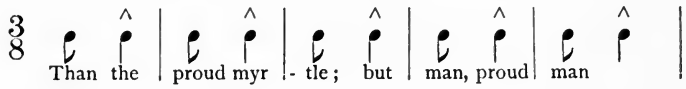
and apply the line in question to this typic scheme as far as it will go, being guided by the place of the pronunciation accent, or of the logical accent, for the place of the rhythmic accent, we find that the only note left without a corresponding word is the note occupying the place suggested for the rest, namely that after "-tle" in "myrtle," thus:



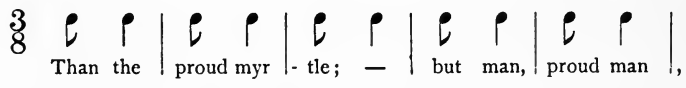
The student observes that in thus measuring the given line by the type, we are guided by the accentual construction, as follows: the first two bars and a third fit exactly:



but, if we should go on with the sounds, the next two accents would fall upon "but" and "proud" thus



in which the "bút man próud man" is of course intolerable: for though the accent can occasionally be reversed, as at the beginning of this very line, or occasionally placed upon unimportant words (as presently explained), this is always done with a light hand, and under a certain artistic guidance of the ear which does not allow it except for pleasing variations of rhythm. Finding therefore that the accentual construction does not allow "but" on the note immediately after "-tle," we try the next note, of course, and finding that here the "but" and all that follows it fit perfectly to the type:



we conclude straightway that the author's rhythmic intention was for a rest to occupy the place and time of the typic quarter-note after "-tle."

This rest makes the line perfectly musical: as may be strikingly illustrated by inserting an actual sound in its place. For example, suppose the line read "myrtle-tree" instead of "myrtle:" if we apply this to the type, we find that it fits exactly, and on reading it aloud it forms a perfect line of blank verse:

The rest, however, is here far more effective than any sound could be: as we shall presently see when we consider the idea Shakspere is dealing with.

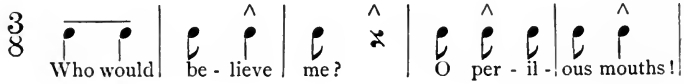
(2) This position of the rest is immediately confirmed when the reader observes that it is the same position with that of the semicolon. The semicolon has the same relation to the logic of the sentence that the rest has to the rhythm of it.

(3) Along with these two considerations straightway comes a third which supports them both, namely: that the expression of the idea involved in the context is heightened, according to English habits of utterance, by just such a rest. The speaker is drawing a sharp and passionate contrast between the use of authority made by Jove, or Heaven, and that made of it by man;

> Merciful heaven!
> Thou rather with thy sharp and sulphurous bolt
> Splitt'st the unwedgeable and gnarléd oak,
> Than the soft myrtle; but man, proud man!
> Dressed in a little brief authority,
> . . . . . .
> Plays such fantastic tricks before high heaven
> As make the angels weep. . . .

It is Isabella, in the extremity of love and terror, pleading with Angelo for her brother's life: what more natural, or more striking, than the momentary pause, after the word "myrtle" which ends the description of Heaven's course, before showing, like as not with a great sob at the very place of the rest, and in a changed voice which the accented rest well introduces, the meaner ways of man?

(4) These considerations seem to reach certainty when we find that in the same act of the same play Shakspere has used the same rhythmical effect — namely, that of accentuating a silence by suggesting a rest in the place of an accented sound — for a similar purpose, namely, to heighten the current idea. This is line 173, already commented upon in another connection:



These instances could easily be supplemented with similar ones, all showing that Shakspere, just like the nursery-rhymer, does not hesitate at a rhythmic intention which requires a rest to be supplied in the body of the line, while, far in advance of the nursery-rhymer, he uses this device with special purpose, where he desires that the rhythmic dress of his idea should not flap about its body but clothe it with absolute fitness.

It is instructive to note that this line, and similar ones, which thus readily resolve themselves into rhythmic proportion when approached from the direction of familiar practices in popular poetry and in music, have presented such insuperable difficulty to those who have considered them with other preconceptions that a corruption of the text has been deliberately posited as the only refuge from the supposition of an unconquerable defect in the rhythm. The method just shown of dealing with disputed rhythms — by first constructing a typic line, and then placing all the certain sounds under their proper notes, in a process analogous to the "exclusive diagnosis" of the physician — will become all

the more valuable to the student if we consider for a moment the fundamental error underlying the argument of those who have abandoned these lines as irreducible to any rhythm.

The following citation from Professor Craik's *English of Shakspere*,[1] concerning the line just now discussed, may perhaps fairly be taken as representative of this argument. "So much cannot be said" — that is, that such lines are not "irregular" or strained by "license" — "for another form of verse (if it is tc be so called) which has also been supposed to be found in Shakspere" such as for instance "the well-known line in Measure for Measure . . .

'Than the soft myrtle; but man, proud man.'

This, it will be observed, is different from a merely truncated line of nine syllables . . . ; . . . the syllable that is wanting is in the middle. . . .

The existing text of the plays presents us with a considerable number of verses of this description. Is the text in all such cases to be accounted corrupt? I confess myself strongly inclined to think that it probably is. The only other solution of the difficulty that has been offered is, that we have a substitute for the omitted syllable in a pause by which the reading of the line is to be broken. This notion appears to have received the sanction of Coleridge. But I cannot think that he had fully considered the matter. *It is certain that in no verse of Coleridge's own does any mere pause ever perform the function which would thus be assigned to it. Nor is any such principle recognized in any other English*

[1] Prolegomena, pp. 36–7, here and there; edition, Chapman and Hall, London, 1857.

verse, modern or ancient, of which we have a text that can be absolutely relied upon.[1] . . . How is it possible by any length of pause to bring any thing like rhythm out of the above quoted words, —

'Than the soft myrtle. But man, proud man.'

If this be verse, there is nothing that may not be so designated."

The logic of this passage may be thus compressed, for the purpose of examination:

(1) That the laws of English verse, as deduced from the practices of English poets, do not admit the substitution of a rest ("pause") for a sound, in the body of a line;

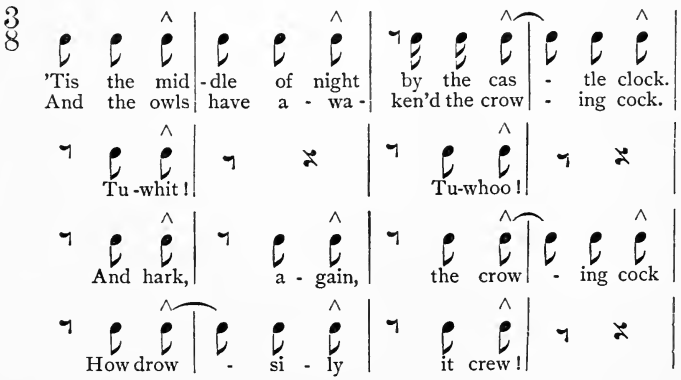
(2) That Coleridge, who interpreted the given line upon the principle that such laws did allow such substitution, never applied the principle in his own verse;

(3) That even if the laws of English verse did allow such substitution, the allowance would not avail for the given line, since no length of rest can possibly make it rhythmical.

Perhaps the argument (1) may be considered sufficiently met by the considerations just now advanced under the head of Shakspere's use of the rest, showing that even our popular poetry is built upon the necessity of such substitutions and upon perfect confidence in the rhythmic perceptions of the ordinary ear as to where to place them. In point of fact Mother Goose would not be rhythmical without them. As to the practices of poets, see the scheme of Tennyson's *Break, break, break*, which involves such rests; and a thousand similar songs could be cited.

[1] The italics here are the present writer's.

(2) But the assertion that "in no verse of Coleridge s own does any mere pause ever perform the function which would be thus assigned to it" is so far from being correct that the entire poem of *Christabel,* in which Coleridge explicitly supposed that he had made a new departure in verse, depends for its rhythm upon the constant substitution of rests ("pauses") for sounds, by the reader, in the body of the line. This was the true innovation made by Coleridge in this poem — an innovation, let it be carefully noted, not at all upon the practices of English verse in general but upon that particular phase of them represented by the inexorable stiffness of the "elegant" period which bred Pope and other like monsters of refinement. Nothing is more common than such rests in the body of the line in Anglo-Saxon verse, and, as shown, in popular verse and in music, and — to return to our point — in Coleridge's own *Christabel.* For example:



presents us with a scheme of the first stanza in Christabel, which reveals that the entire rhythmus depends on the occurrence of definite rests in the body of the

line as well as at the end of the line. No one indeed was more familiar with such rhythmic devices than Coleridge, and many instances of such rests could be given from his work.

(3) Finally, as to the assertion that no length of pause could bring any thing like rhythm out of the given line: if the words be uttered according to the scheme offered above, they must certainly sound perfectly rhythmical to every ear.

SHAKSPERE'S USE OF END-STOPPED AND RUN-ON LINES.

The explanation of end-stopped and run-on lines already given need not be repeated here, and perhaps it will be sufficient to give the briefest outline of the manner in which these varieties of the line-group in blank verse have become tests of genuineness — as in determining the respective shares of Shakspere and Fletcher in the play of Henry VIII. for example, or tests of chronology — as in determining, or at least helping to determine, the comparative dates of Shakspere's plays.

In order to place vivid examples before the reader's mind at the outset: here are four end-stopped lines from near the opening of *Love's Labor's Lost:*

> Our late edict shall strongly stand in force:
> Navarre shall be the wonder of the world;
> Our court shall be a little academe,
> Still and contemplative in living art.

Let it be observed how each of these lines is so "stopped" at the "end" (hence "end-stopped" lines), by comma or other mark of punctuation or sometimes

by a stop only logical and without mark, as to necessitate a rest or pause of the voice.

Here, on the other hand, are four run-on lines from *The Tempest*, which I have chosen because it is one of Shakspere's latest plays while *Love's Labor's Lost* is one of the earliest, and, although the end-stopped test is not to be relied on alone nor pushed too far, there seems no doubt that the timid use of run-on lines is in general characteristic of Shakspere's earlier period and the free use of them characteristic of his maturity in art. These lines are from Act I. Scene 2:

> . . . and by my prescience
> I find my Zenith doth depend upon
> A most auspicious star, whose influence
> If now I court not, but omit, my fortunes
> Will ever after droop.

Here it is perceived that neither of these lines logically admits of a rest at the end but that the close connection between the last word of each line and the first word of the next inevitably "runs" the voice "on" (hence "run-on" lines) past the end of the line, usually to some point in the body of the next line. Now the proportion of run-on lines to end-stopped lines in *Love's Labor's Lost* is only a little more than one in eighteen while that in *The Tempest* is a little more than one in three. It will thus be readily seen that here is a very precise method of estimating the changes in Shakspere's habits of versification, and that this precise method must be far more reliable as tracing the true course of his artistic growth than those vague judgments which embody so much of the personal equation and which were for so many years the bane and disgrace of Shakspere criticism. In fact it may be said

that the spirit of precise inquiry has had the same stimulating effect in Shakspere scholarship as in physical science, and that under its influence the world is beginning for the first time to get insight into the true life and artistic growth of our master.

The student should now familiarize himself with this branch of Shakspere criticism by choosing some play of Shakspere, counting first all its blank-verse lines, then its end-stopped and run-on lines respectively, and finally deducing the proportion of each variety of line to the whole number of lines. Treated in this manner the plays after a while begin to assume a distinctive physiognomy even to the eye: as one reads one sees, in a delightful half-consciousness, the face of the young Shakspere glowing through the lines, or the more reverend countenance of the grave and mature artist who has embodied the whole of his life in his art and is become a great and forgiving and patient Prospero, ready to lay down his mantle and depart.

Yet — it is worth while repeating the warning, for ideas of this sort are apt to run-away with one — the end-stopped and run-on line test is not to be relied on, alone, for determining the relative priority of plays near together. While, as between the early extreme of Shakspere's growth represented by *Love's Labor's Lost* and the late extreme represented by *The Tempest*, the difference in versification with regard to these varieties of lines is perfectly plain; while, indeed, every one but moderately acquainted with the secrets and necessities of dramatic blank verse must see that the progress of an artist like Shakspere could not be otherwise than from the hardness and four-square-ness of the end-stopped line to the rounded grace and freedom of the

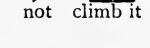
run-on line; nevertheless many other considerations arise before the grave and careful Shakspere scholar which must be held steadily in view along with this, or any other single one of the "metrical tests."

The method of end-stopped and run-on lines was first discussed by C. Bathurst in his work, *Changes in Shakspere's Versification at Different Periods of his Life.* Those desirous of pursuing the subject may consult that; Dowden's admirable *Shakspere Primer*, Macmillan & Co., London and New York (but I believe more lately published by Messrs. Appleton & Co., New York); Mr. Furnivall's Introduction to the Delius Text embodied in *The Leopold Shakspere*, Cassell, Petter, & Galpin, London, Paris and New York; and, here and there, the papers and discussions set forth in the *Transactions of the New Shakspere Society* for 1874.

The method of using this test for the determination of the genuineness of Shakspere's plays can be better explained when we consider the next branch of our present subject, namely:

SHAKSPERE'S USE OF THE DOUBLE-ENDING, OR FEMININE-ENDING, LINE.

The following is a specimen of the double-ending line, from *The Two Gentlemen of Verona*, Act I, Scene 1:

Here the final bar has the form 

instead of the typic form

. In the treatment of Chau-

cer's verse we became familiar with the special rhythmic effect of this breaking-up of the typic ♩ which terminates the line into ♩. 𝅘𝅥𝅯, its equivalent; and the "it" in "climb it" here is much like the final *e* in Chaucer, as to rhythmic value.

The feminine ending is a species of double ending: where the two sounds at the end of the line constitute separate words, as in "climb it," the ending is called double; where these two sounds belong to the same word, as the terminal word "slander" in

the ending is called feminine. Not infrequently the terminal ♩ is broken into three sounds, as in "miracles" at the end of the following line:

Let it be carefully observed that in the above three lines the first, if typic, would end with the sound "climb," thus

the second line, if typic, would end with "slan-," thus:

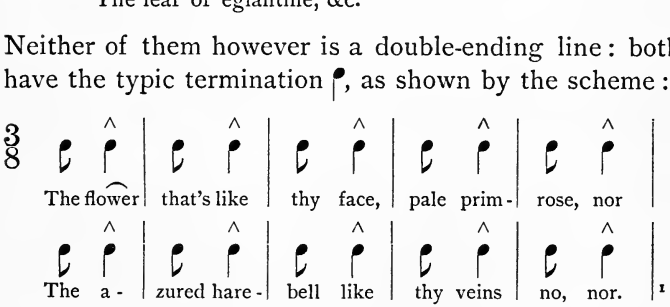
and the third, if typic, would end with "mir-," thus:

From this circumstance such syllables as the "it" in "climb it," "der" in "slander," and "acles" in "miracles," are often called "extra syllables." The reader in hearing this term must of course understand that the extra syllable is simply another sound which takes off part of the time-value of the typical ˈ at the end of blank verse lines, and that there is no such thing in rhythm as a really "extra" syllable, whatever time-value is in the bar being distributed among all the sounds in that bar, whether these be one, or five, or none — that is, rests.

Care must be had against mistaking lines as double-ending which are not so. For example the following italicized lines look like double-ending ones at first:

Thou shalt not lack
The flower that's like thy face, pale primrose, nor
The azured harebell like thy veins, no, nor
The leaf of eglantine, &c.

Neither of them however is a double-ending line: both have the typic termination ˈ, as shown by the scheme:



Two very interesting applications of the double-ending as a metrical test have been made by modern scholarship.

[1] This is only a typic scheme, sufficient for the purpose in hand. The actual movement of the voice does not accent the two "nor"s at the end of these lines, but disposes of them in a very interesting way which will presently be explained under Shakspere's use of the rhythmic accent.

(1) For example, it has been applied, in conjunction with the end-stopped line test, to determine the relative shares of Shakspere and Fletcher in the play of *Henry VIII.* The very palpable unlikeness in the style of different passages in this play had attracted the attention of critics as early as the time of Dr. Johnson; but it was in 1850 that the subject was taken hold of in earnest.

The Gentleman's Magazine for that year contained a notable paper by Mr. James Spedding,[1] in which, after having assigned certain parts of the play to Fletcher and certain parts to Shakspere upon general considerations of their respective styles, the writer proceeded to announce at least the possibility of a metrical test, and partly to shape the method of applying it. The student will derive such a valuable lesson as to the manner in which reverent scholarship avails itself of apparently trivial facts and applies them in the precise determination of what seem to be insoluble problems, that I think it well worth while to trace the progress of this metrical test from the beginning made by Mr. Spedding to the development of it afterwards made by Mr. Fleay and Mr. Furnivall. "It has been observed" (said Mr. Spedding, in the latter part of his paper) . . . that lines with a redundant syllable at the end" — by which he means double-ending and feminine-ending lines — "occur in Henry VIII. twice as often as in any of Shakspere's other plays. Now, it will be found on examination that this observation does not apply to all parts of the play alike, but only to those which I have noticed as, in their general character, un-Shaksperian." He

[1] Entitled "Who wrote Shakspere's Henry VIII.?" It may be found reprinted in the *Transactions of the New Shakspere Society* for 1874.

then arranges a table in which he gives the proportion of double-ending lines to the whole number of lines, for each scene of the play. Having next ascertained what is the ordinary proportion of such lines in two of Shakspere's plays which were written about the same period with *Henry VIII.* — namely, *Cymbeline* and *Winter's Tale* — he goes through the table, and wherever he finds this proportion substantially carried out in any scene, he assigns that scene to Shakspere; wherever he finds a greatly larger proportion of double-ending lines in a scene, he assigns that scene to Fletcher. Having compared these assignments with those which he had previously made, based upon broader grounds of style, he finds them substantially agreeing.

Before showing the further development of this process, it is impossible to forbear an acknowledgment of gratitude to the author of the paper just quoted as a genuine discoverer in criticism. While, as has been before remarked, the double-ending test should not be pushed into minuter offices than it or any other such test can discharge; yet, as a precise and numerically-verifiable check to critical estimates which have been formed upon other considerations often liable to bias from personal temperament and always more or less vague, it is of very great value; and, as importing into criticism the methods of exact science and to that extent relieving it from its long-time opprobrium of uncertainty, the service of Mr. Spedding to modern culture must be regarded very great.

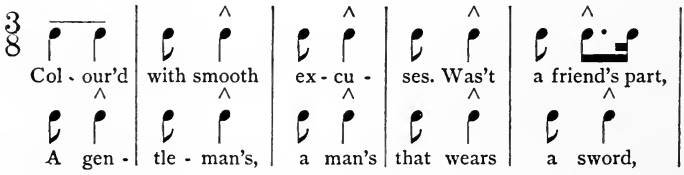
In course of time a clew which made the process of reasoning just detailed still more precise was found Mr. Fleay, in examining several Elizabethan dramatists besides Shakspere with reference to the use of rhymes,

double-endings, &c., in their verse, had observed amongst other things that Fletcher's verse is distinguished,

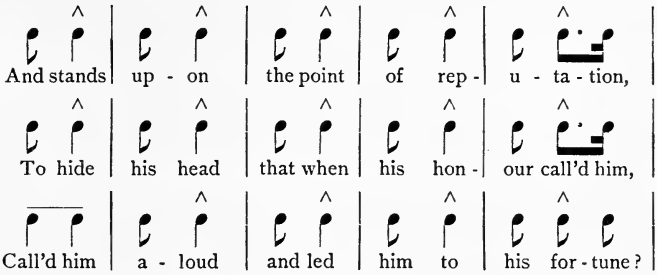
"(1) By number of double or female endings; these are more numerous in Fletcher than in any other writer in the language, and are sufficient of themselves to distinguish his works;"

"(2) By frequent pauses at the end of lines; this union of 'the stopped line' with the double ending is peculiar to Fletcher." [1]

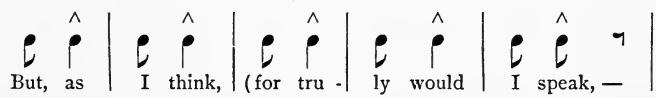
Without going farther into Mr. Fleay's skilful and laborious researches: if we examine, by the musical method of schemes, a double-ending line of Fletcher's with reference to the peculiarity marked (2) above, we shall find Fletcher's combination of "double-ending" with "end-stopped" line to be a rhythmic idiosyncrasy so individual as to form a very well-marked test between Fletcher and Shakspere, especially when we add the characteristic circumstance that Fletcher's double endings very often consist of two important words, as "a friend's part" (which is the final bar of the first Fletcher line given below), instead of "to climb it," a heavy word and a light one ("it") as in Shakspere's double-ending line before cited. Here then is a scheme of five consecutive lines from Fletcher, in the *Little French Lawyer:*



[1] p. 53, Rev. F. G. Fleay's paper number 2, *On Metrical Tests as applied to Dramatic Poetry*, printed in *The Transactions of the New Shakspere Society*, for 1874.



If the final bars in the first, third, fourth, and fifth of these lines be examined, it will be found that each ends not only in two sounds, but that these two sounds have a comma after them, indicating a rest of the voice between their last sound and the first of the next line, and thus distinguishing them from run-on lines which have no such rest. Now it must be remembered that in the ordinary end-stopped line this rest is supplied out of the time-value of the last in the final bar, thus:



where the silence indicated by the dash in the text is indicated by the in the scheme, and the time-value of "speak," which would otherwise be , has been reduced to to make room for the rest. But if the first line of Fletcher's above-cited be read aloud one easily feels that this procedure will not do: after the words "a friend's part," a longer and more pronounced rest is needed before the intercalary clauses, "a gentleman's, a man's that wears a sword," &c. Whence is this rest to come? We cannot slice off a cantle of the time-value of "part" for it, — for "part" itself has had to share some of the time-value of "friend's" — thus

— and its time-value 𝅗𝅥 is not enough for the rest here needed.

In point of fact the voice makes another bar to the line here: and — relying upon the rhythmic sense which will never tolerate any thing like an "extra" or "redundant" sound, but which inexorably fills out with rests any bar partly occupied by sound — the actual conduct of the reader's voice in such a line is as follows:

Here the requisite rest is obtained at the end; but obtained by making the line-group consist of six bars instead of the five bars which constitute a typic line of blank verse. Thus the precision of the musical system of noting rhythm acquaints us with the important fact that many of Fletcher's end-stopped double-ending lines are really Alexandrines,[1] and that this is the secret of the characteristic effect which Fletcher's rhythm[2] produces upon every ear, — an effect smooth, yet heavy and

[1] Lines consisting of six bars of the form 𝅗𝅥 | are called "Alexandrines" from their use in the French poem *The Alexandriad.*

[2] Mr. Emerson, in *Representative Men*, gives a perfect description of it, though apparently not suspecting Fletcher here. He describes the verse of Fletcher's part of *Henry VIII.* as "written by a superior, thoughtful man, with a vicious ear," adding: "I can mark his lines, and know well their cadence. . . . The lines are constructed on a given tune, and the verse has even a trace of pulpit eloquence."

Mr. Spedding in a letter to *The Gentleman's Magazine*, October, 1850, (reprinted in the Shaks. Soc. Trans. for 1874, Appendix, p. 21) mentions: "The resemblance of the style, in some parts of the play, to Fletcher's,

crawling withal. If now we compare this fact with the curiously-differing practice of Shakspere, we obtain a very striking mark of distinction. While Shakspere used the double-ending line far more freely in his late period than in his early one — the early *Love's Labor's Lost* has but nine[1] double-ending lines in a total of 2,789 while the late *Winter's Tale* has six hundred and thirty-nine double-endings in a total of 2,758 — he also used the run-on line with a similarly-increased frequency: so that while by virtue of the more frequent double-endings his verse grew more like Fletcher's, it grew more unlike Fletcher's by virtue of the enormous musical difference between Shakspere's run-on lines, which are merely rendered more elastic and varied by the double-ending, and Fletcher's end-stopped lines, which are really impressed with the sluggishness of the Alexandrine by the double-ending. In other words, Shakspere's run-on double-ending line preserves the metrical type of the five-barred blank verse line, and agreeably varies the rhythmical type; while Fletcher's end-stopped double-ending line frequently destroys the metrical type of blank verse, giving it six bars instead of five to the line, and does not vary the rhythm at all.

But, to return from this digression. The procedure described by Mr. Spedding in his paper on Henry VIII. was carried out by Mr. Fleay on a larger scale, with the

was pointed out to me several years ago by Alfred Tennyson . . .; and long before that the general distinctions between Shakspere's manner and Fletcher's had been admirably explained by Charles Lamb in his note on the *Two Noble Kinsmen*, and by Mr. Spalding in his Essay."

[1] Perhaps it is worth while noting a probable lapsus of the pen which gives this number as "seven" in Mr. Fleay's paper number I *On Metrical Tests applied to Shakspere*, p. 7, while the figure in the annexed table is "9."

additional clew of Fletcher's habitual combination of the double-ending with the end-stop; and the result was a substantial confirmation of Mr. Spedding's original distribution. It is worth the student's while to remember the general proportions of double-endings as between Fletcher and Shakspere at the period when Henry VIII. was written — probably about 1613. This proportion appears, from the table in Mr. Fleay's note printed on page 23 of the Appendix to the New Shakspere Society's Transactions for 1874, to have been as follows. Out of the 1,146 blank verse lines in *Henry VIII.* assigned to Shakspere, 380 were double endings: while, out of 1,467 blank verse lines assigned to Fletcher, 863 were double endings.

Again: Mr. Spedding's distribution was independently confirmed, upon an examination of the play with reference to the end-stopped line only, by Mr. Furnivall.

When it is stated that Mr. Samuel Hickson, before 1850, had made an independent distribution of the parts between Shakspere and Fletcher on general grounds of style, which, after the publication of Mr. Spedding's paper, was found to agree with its conclusions in a surprising manner, the student will be able to perceive the valuable aid which minute criticism — as we may perhaps call the verse-tests — can render in affording checks to large criticism.

The mention of Mr. Fleay's name in connection with the double-ending researches above makes it necessary to add that he has associated his name most completely with the rhyme-test — which ascertains chronology &c. from Shakspere's growing disuse of rhymes as he became older — while Mr. Spedding places more reliance upon the pause-test, that is, the relative occurrence of

rests in the body of the line and at the end of the line, at different periods of Shakspere's work.

SHAKSPERE'S USE OF WEAK-ENDING AND LIGHT-ENDING LINES.

A line of blank verse ending in a merely conjunctive word such as *and, as, if, in, nor, than, with,* is called a weak-ending line: while one ending in an auxiliary verb such as *am, have, is, would,* and the like, or in a relative pronoun *who, which, that,* and the like, or in *since, while, through, till,* and such words, is called a light-ending line. In the following lines from *The Winter's Tale,* the first is a light-ending, and the second is a weak-ending line:

> Since what I am to say, must be but that
> Which contradicts my accusation, and
> The testimony on my part no other
> But what comes from myself, it scarce shall boot me.

It is readily seen that weak and light endings really make a species of run-on lines, for they have in common the incident that the voice does not pause after their last sound but runs-on its rhythmic grouping into the next line. The use of these endings therefore forms an important part of phrasing; and nothing is more noticeable than the parallelism between the advance which Shakspere made in the breadth and freedom of his phrasing and the advance which every growing musician makes in precisely the same particulars. Observe for instance how grand and sweeping are the phrases in the lines quoted: the real metrical grouping is

> Since what I am to say,
> Must be but that which contradicts my accusation,
> And the testimony on my part no other but what comes from myself;

and the words are so arranged that the rhythm is of incessant variety while the type is never lost sight of.

The weak and light-ending lines, like the run-on lines of which they are a species, are highly characteristic of Shakspere's later periods as contradistinguished from his earlier ones: but they differ from the double-ending and run-on lines in the circumstance that they do not show a gradual increase in frequency but seem to appear almost suddenly in *Macbeth* and *Antony and Cleopatra*, after which they are freely used.

For example, in the 1,146 lines constituting Shakspere's part of *Henry VIII.* there are 82 weak and light endings; and *Cymbeline*, another very late play, shows 130 weak and light endings; while some earlier plays, such as *Comedy of Errors* and *Two Gentlemen of Verona*, have none at at all, *Midsummer Night's Dream* one, and *Henry IV.* one in each part.

The subject of weak and light endings in its relation to Shakspere's art has been developed by Professor Ingram, of Trinity College, Dublin, who has formulated his researches in a most useful table showing the percentages of such endings in the plays.

SHAKSPERE'S USE OF THE RHYTHMIC ACCENT.

In his peculiar management of the rhythmic accent, also, Shakspere's supreme mastery of the technic of blank verse shows itself with great clearness. We can see him learning to think in verse. Indeed, growing always, in the way of the artist, — always profiting by the practice of his earlier comedy, of his middle-period tragedy, — always converting acquisition into second nature, — he finally made his whole technic a constitu-

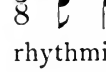
tional grace, so that his passion flowed with a hereditary pre-adaptation to rhythm.

The great underlying principle, however, of all Shakspere's applications of his technic in practice was a superb confidence in the common rhythmic perception of men and a clear insight into the rhythmic habit of familiar English utterance. This method of working with a constant inward reference to the great average and sum of men, and with an absolute reliance upon their final perception, is the secret of that infinitely-varied rhythm which we find plashing through all the later blank verse of Shakspere; and one of the most frequent means by which he effected these variations without either impairing the type of the verse or straining the habit of utterance out of its familiar course was the artful transferrence into verse of the actual use which English-speaking people make of the rhythmic accent in their current discourse.

Perhaps every one has observed that particularly in Shakspere's later plays he seems absolutely careless as to what kind of word the rhythmic accent may fall on. Sometimes it is on the article *the*, sometimes the preposition *of*, sometimes the conjunction *and*, sometimes the unaccented syllable of a two-sound word as *quickéns* instead of *quíckens*, and so on.

This apparent carelessness is really perfect art. It is the consummate management of dramatic dialogue in blank verse, by which the wilder rhythmic patterns of ordinary current discourse are woven along through the regular strands of the orderly typic lines.

The following illustrative schemes aim to show the student precisely how this is done. Every one knows what is called an "air with variations," in music, and has

observed how in each "variation" the "air" is to be heard, maintaining its comparatively simple melody, as a sort of type, through all the complexities of the variation-forms. If, then, the typic form of blank verse — which is, a line of five bars, each bar of the form  — be considered the air, and the actual rhythmic movement of the voice in uttering each line be considered the variation, we shall have a tolerably precise conception of the relation between type and variety. And such a conception suggests the course pursued in arranging the following schemes for the purpose of showing Shakspere's peculiar freedom in using the rhythmic accent. A given passage being taken, we first apply each line of the words to a line of the musically-noted type of blank verse: such application will show the rhythmic accent falling upon sounds which do not receive any accent in familiar discourse; but if we then read the words for the sense, note down the actual conduct of the voice in so reading them, and compare the resulting notation with that of the type, we will always find that the type is carefully preserved in all its essential features but only varied by different distributions of time-values in each bar to accommodate the proper position of the accent. This proposition sounds obscure in the abstract, but becomes quite clear in the concrete illustration.

In studying these schemes, the student should have always in mind the following principles:

(1) That in Shakspere's verse the only way to get the exact rhythm is to read for the sense;

(2) That Shakspere never mangles the type of his blank verse;

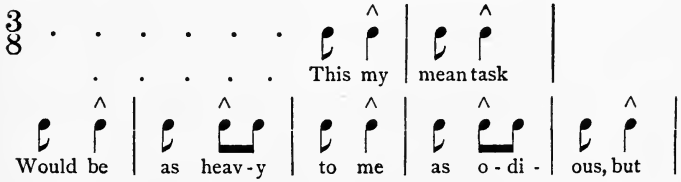
(3) That consequently, in every line,[1] five rhythmic accents are always present or accounted-for: and that it is in his method of "accounting-for" them that Shakspere's mastery is so apparent, for it is the method of common speech, and his verse thus forever crowds the firm fabric of the type, as a canvas, with all the multitudinous and floating rhythmical figures of every-day utterance.

Only the most frequent forms of this accentual variation are here given. An exhaustive presentation of them all would be impossible in this space. But it is hoped that every student with an ordinary musical ear will be able to perceive, and to note down, the philosophy of all Shakspere's music, from the illustrations given.

Let us apply the process detailed in a previous section, for example, to the following passage from Ferdinand's soliloquy in *The Tempest*, Act III. Scene 1.

This my mean task
Would be as heavy to me as odious; but
The mistress which I serve quickens what's dead
And makes my labors pleasures.

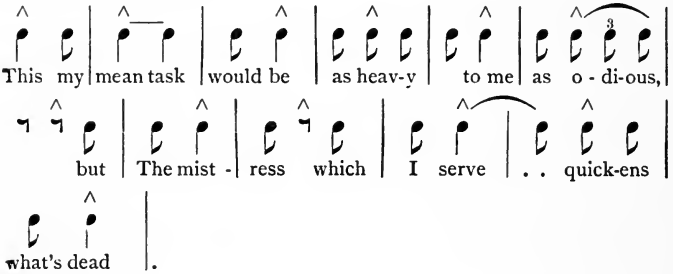
Applying the first three lines to their types, we have the scheme:



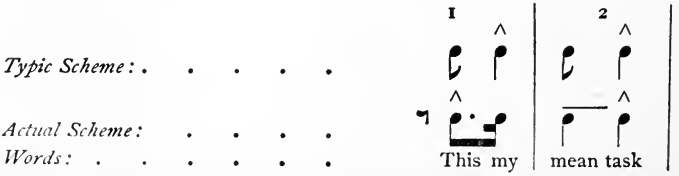
[1] Of course those lines excepted which are evidently meant to contain three, or less, bars, or four, or six, bars: some of which are written to vary the metrical type, some due to corrupt texts, some to lapsus of hurry, and the like causes.

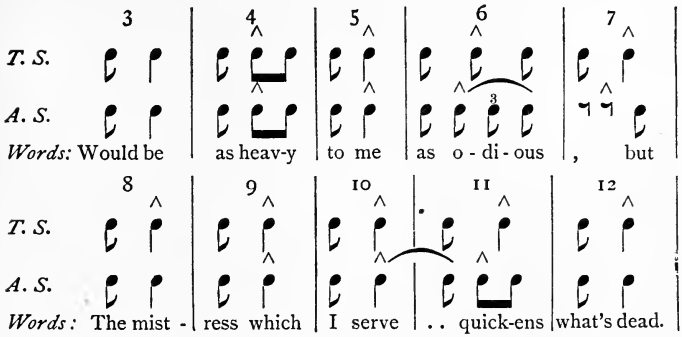
On observing the position of the stress-mark ^ in this scheme we find the accentuation in three places to be such as would sound very absurd in usual speech. In the first line an accent falls on "my;" in the second on "but;" in the third on the syllable "-ens" of quick-ens. Of course no one would read: This mý mean task would be as heavy to me as odious bút the mistress which I serve quick*éns* what's dead.

But, when read for the sense as if it were prose, this is the rhythmic movement as heard in the ordinary reader's utterance:

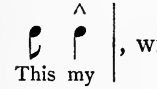


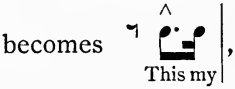
If now we take this prose utterance and divide it off into line-groups of five bars each, we will be able to compare it bar for bar with the typic scheme. For this purpose let us write the typic scheme, then under it bar for bar the actual scheme, and finally the corresponding words.



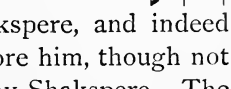
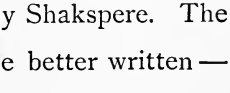


Let us compare such bars of this actual scheme as differ from their corresponding bars in the typic scheme. This particular passage was selected because it reveals the three methods most habitual with Shakspere of varying the rhythmic accent and still preserving the type.

(1) On comparing bar 1 of the actual scheme with its corresponding bar of the typic scheme above, we find that the typic accent has been shifted to the first instead of the second word in the bar; the typic form 

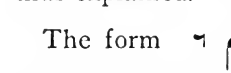
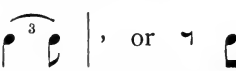
, with the accent on "my" becomes 

, with the accent on "this."

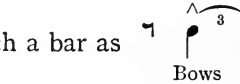
We have here a form of varying the typic bar which was in great favor with Shakspere, and indeed with Chaucer two hundred years before him, though not nearly so freely used by Chaucer as by Shakspere. The substituted form  might be better written — to suit the more flowing and less snapped-off utterance of some readers — thus  , in which is

given in the same time as ♩, being indeed only another form of the familiar triole . Now the occurrence of the rest at the beginning of this form connects itself in an interesting manner with the circumstance that Shakspere's favorite places for using this form are: (1) at the beginning of a line; and (2) at the beginning of a phrase, just after the rest which marks off the preceding phrase.

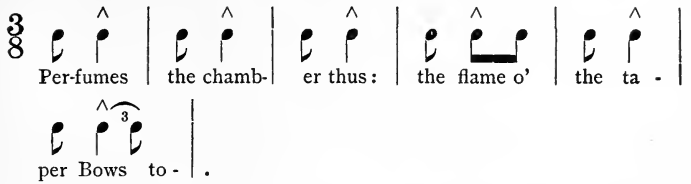
The fitness of such places for this sort of bar may be thus explained.

The form  , or  , (which we may hereafter use quite interchangeably) presents a curiously plastic bar to come at the beginning of a line because it can be made by the ear to fit-on to the end of either a double-ending run-on line or an end-stopped line with great facility by means of the vacant place represented by the 𝄾. For example, here is a double-ending line out of *Cymbeline*, running-on to a line which begins with this form, that is, with the first sound accented:

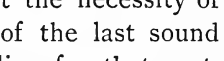
> Perfumes the chamber thus: the flame o' the taper
> Bows toward her.

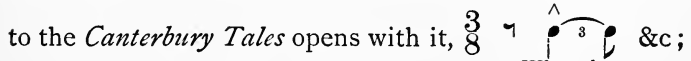
Now in practice the last sound "-er" of "taper" would here be put in the place of the 𝄾 which begins the usual form of such a bar as 

, and instead of being what is usually called the "redundant syllable" of the double-ending line "Perfumes the &c. tap*er*" it would be the unaccented first syllable of the next line, as in this scheme:



Thus after a run-on line with a double-ending, the next line may begin upon an accented syllable — instead of upon the unaccented syllable always beginning a typic line of blank verse — with peculiarly dove-tailing effect. Shakspere is evidently fond of it, and we find many pairs of lines for which the scheme just given would serve.

On the other hand, in beginning the line after an end-stopped line, the in the form furnishes the proper pause which the voice must make in ending an end-stopped line, — without the necessity of slicing-off a part of the time-value of the last sound in the final bar of the end-stopped-line for that rest. Here it is evident that the in the form  discharges two functions: (1) of marking-off the line-group or phrase-group which precedes it, and (2) of accounting to the ear for the customary unaccented syllable which precedes every accented syllable in typic blank verse.

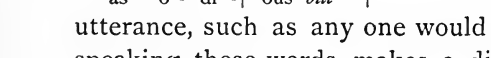
Chaucer evidently likes to set-off with this form, in beginning a tale, or a stanza, or a line. The prologue to the *Canterbury Tales* opens with it, 

&c; the first tale, *The Knight's* opens with it,

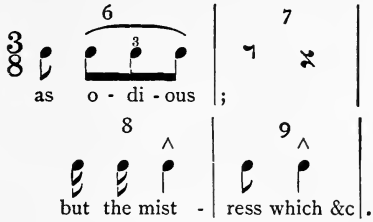
the *Pardoner's* prologue opens with it,

many lines begin with it, such as, in the *Wife of Bath's* tale,

Continuing our comparison of corresponding bars in the typic and actual schemes, and passing-over bars 2, 3, 4, and 5 which are alike in both: we come to bars 6 and 7 which reveal one of Shakspere's characteristic methods of disposing of the rhythmic accent. Here the accent in the typic line would fall on "but:"



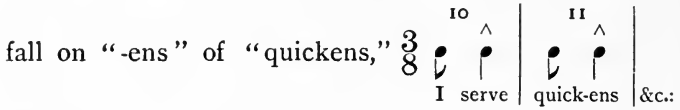
but the rhythmus of common utterance, such as any one would unconsciously use in speaking these words, makes a different distribution of the time-values in each of these bars (as Shakspere well knew) and not only throws the whole of the word "-odious" into the 6th bar, but fills up the place of "-ous" in the 7th bar with the rest 𝄾, at the same time slicing off part of the in the typic bar for another rest 𝄾, thus leaving "but," as it should be, unaccented and easily running on to the next line, — so easily, in fact, that many voices — perhaps most — would put it in the next line entirely, and make the 7th bar all rest, thus:



This rest in bar 7 is here of great importance and interest. We had occasion in discussing the line "Than the soft myrtle &c.," above, to observe how cunningly Shakspere interposes a rest in the body of the line at a point where there is to be a great change or antithesis in the idea — where indeed many writers would punctuate with a dash, or a semicolon. The rest here is of exactly similar logical function: Ferdinand, a prince, set by Prospero to carrying logs, says: "This, my mean task, would be as heavy to me as odious" — here however the image of Miranda comes to him; his frown of disgust changes to the rapturous smile of love; a wholly antithetical idea is to be expressed, and before expressing it, Shakspere inserts the rest after the unaccented syllable "-ous" of "odious" just as for the same purpose he inserted the rest after the unaccented syllable "-tle" of "myrtle," — "but the mistress which I serve quickens what's dead &c." The rest, therefore, of the 7th bar discharges both the logical office of separating the antithetic clauses, and the rhythmical office of relieving "but" from the rhythmic accent.

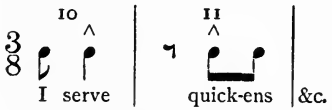
Passing-over bars 8 and 9 which are alike in both schemes, we come to bars 10 and 11 which show us a third method of Shakspere's for relieving sounds from the rhythmic accent which would not take the pronunciation-accent, herein also remembering how this relief

is given in ordinary speech and applying the principle in verse. In the typic bar 11 the rhythmic accent would fall on "-ens" of "quickens,"



but in uttering these words, the reader would make a different distribution of the time-values: the sound "serve" — which is a good sound for prolonging without the drawl which English ears hate — is held-over into the next bar until it occupies the ♪ time-value previously occupied by "quick-;" and the sound "quick-," being thus relieved, is assigned to the next note forward, which is the accented note, while its other sound "-ens" is given to the third eighth-note, the ♪ of the typic bar being broken into two ♪ ♪ for "quick" and "ens" respectively.

There are many voices, of decisive or jerky utterance, which will not prolong a note: such voices, instead of relieving the sound "quick" as above by a prolongation of "serve" through the time of the first ♪ in the "quickens" bar, would give "serve" only its own time and simply substitute a rest 𝄾 for that ♪, thus:



The student who will patiently master the three methods now detailed in connection with (1) bar 1, (2) bars 6 and 7, and (3) bars 10 and 11, will be at no loss in interpreting Shakspere's subtlest dispositions of the rhythmic accent. Although these methods may appear

abstruse at first to those unfamiliar with the logic of rhythmical processes, they will presently become entirely plain: they are indeed the most familiar phenomena in music, in popular poetry, and in the utterance used for ordinary English conversation, nor ought they to be regarded as any thing more than the mere A B C of English verse. They would not be so regarded if it were not for certain wide-spread misconceptions which have resulted in blinding many persons to the vitally-important distinction between type and variety in verse. When the classic prosodies inform us that the hexameter consists of dactyls and spondees alternating at pleasure except that the last foot in a line must always be a spondee and the next-last always a dactyl, they give us but the type of the hexameter. The actual movement of a Greek or Latin reader's voice in delivering Homer or Virgil would without question exhibit variations of the type analogous to those which have just been discussed in Shakspere's verse. It is likely that if the knowledge of classic prosody was not so often confined to the knowledge of the classic hexameter only, these misconceptions as to the type might be dissipated by facts which must attract the attention of all thorough students of forms of classic verse other than the hexameter. For example, the interposition of the rest in the body of the line, and the relief of syllables not admitting the rhythmic accent by the various methods just detailed, might — if we understood familiar Greek utterance as well as we do our own — easily solve many of the Greek choruses which are at present but rhythmic confusion; and I think there can be no doubt that these choruses are, like Shakspere's verse, an escape out of the rigidities of the type into the infinite

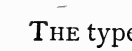
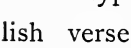
fields of those subtle rhythms which pervade familiar utterance. Thus, approached from the direction of classic prosody — and often from that of only so much classic prosody as is involved in the narrow type of the hexameter — Shakspere's verse has often seemed a mass of "license," of "irregularity," and of lawless anomaly to commentators; while, approached from the direction of that great rhythmic sense of humanity displayed in music, in all manner of folk-songs, and in common talk, it is perfect music.

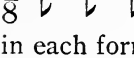
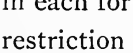
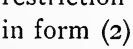
In closing this necessarily meagre account of blank verse it is interesting to note that the prevalence in English poetry of the iambus — which is the basis of blank verse — had already attracted attention as early as the third quarter of the 16th century. I find Webbe speaking of it, in his *Discourse:* "The naturall course of most English verses seemeth to run uppon the old Iambic stroake," he says. Gascoigne, in his *Certayne Notes of Instruction*, also refers to it: "Commonly now a dayes in english rimes we use none other order but a foote of two sillables, whereof the first is depressed or made short, and the second is elevate or made long," i.e. , or the iambus: "and surely I can lament" — he adds — "that wee are fallen into such a playne and simple manner of wryting, that there is none other foote used but one."

A still more cunning testimonial to the exclusive prevalence of the iambus occurs in King James's *Reulis* &c. for verse: for he gives no "Reulis" for any other kind! as if he were unconscious that English verse admitted any rhythm besides the iambic. His pithy injunction is that "your first syllable in the lyne be short, the second lang."

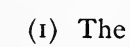
CHAPTER VI.

OF 4-RHYTHM, GENERALLY; AND SPECIALLY, OF ITS TWO FORMS.

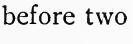
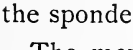
THE type of 4-rhythm is  . In English verse it usually occurs under the form (1)  , or the less common form (2) , the two varieties of bar in each form alternating with each other subject to no restriction except that usually the variety in form (2) terminates the line.

(1) The form (1)  is the classic dactyl and spondee. The dactyl is "one long before two short," which corresponds with  ; and the spondee is two long, which corresponds with  .

The movement of this rhythmus in English is well illustrated by the following old Scotch poem :


Hame came my | gude - man, an' | hame came | he; and

There he saw a | horse where | nae horse should | be.

It is of great importance to distinguish this  , the true classic dactyl, from the bar which is usually called a dactyl in English verse,  . The

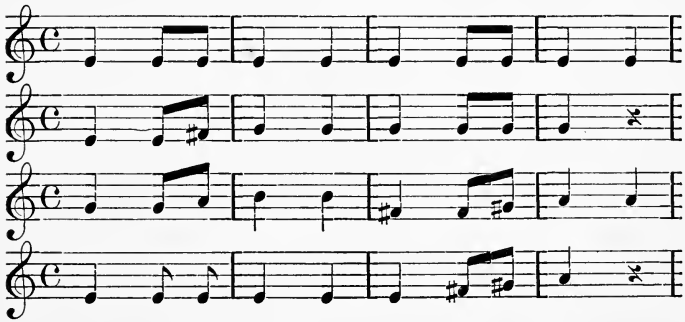
two lie at opposite poles of rhythm, the former — $\frac{4}{8}$ ♩ ♪ ♪ |, the classic dactyl — being in 4-rhythm, studied, formal, ponderous, and the latter $\frac{3}{8}$ ♪ ♪ ♪ | none of these, but capable of infinite variety.

This confusion has arisen from what was called the logaœdic dactyl. If we should utter the first ♩ in $\frac{4}{8}$ ♩ ♪ ♪ (the classic dactyl) short, as might well happen in rapid speech or prose (Greek *logos*), rather than long as required in the type of the poem or song (Greek *aoidē*), we should have ♪ instead of ♩, and ♪ ♪ ♪ | instead of ♩ ♪ ♪ |: that is a sort of prose-song (*logos-aoide*, "logaœdic") dactyl, or logaœdic dactyl.

But the logaœdic dactyl is our old friend, the type of 3-rhythm, familiar in English verse from its beginning to the present time: while the 4-rhythm classic dactyl is exceedingly scarce in English verse. The "hexameters" which were made by Harvey and Webbe in the 16th century, and those in which Mr. Longfellow's poem *Evangeline* is written, agree with the classic hexameter only in metre, that is, in having 6 bars to the line: their rhythm is totally different and no English ear could tolerate them if accurately uttered according to the classic form $\frac{4}{8}$ ♩ ♪ ♪ |.

This form of 4-rhythm called the classic dactyl, $\frac{4}{8}$ ♩ ♪ ♪ — dominating old epic verse almost as completely as the form of 3-rhythm, $\frac{3}{8}$ ♪ ♩̂ |, called the iambus, dominates English verse — reveals to us a

remarkable difference in the rhythmic bent or genius of English people as compared with Greek and Latin people. The classic dactyl has the ponderous pulse of march-time: the iambus has the swing of a waltz. The awful second movement in Beethoven's Seventh Symphony — a movement in which he seems to have had in his mind the inexorable march of the human race from the mystery of birth to the mystery of death, the march from the tomb to the tomb, *ἐκ τύμβοιο ἐπὶ τύμβον* — has its important subject in exactly this rhythm of the classic dactyls and spondees:

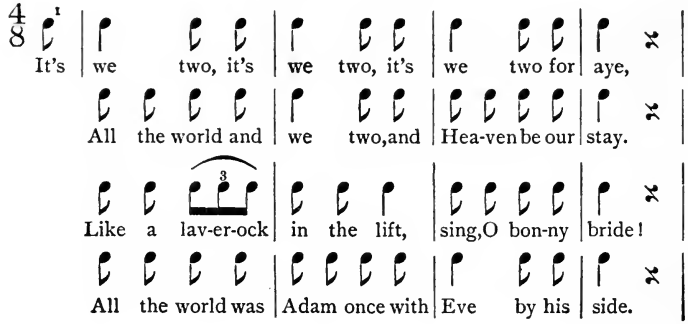


in which grim regularity presides like the changeless fate in a Greek tragedy.

The next movement of this symphony has its opening subject, on the contrary, in the rapid swing of a very light form of 3-rhythm, nearly akin to the iambus. This subject has been already given.

Perhaps the reader will sufficiently understand the possibilities of this form of 4-rhythm in English verse upon analyzing the following fervent ballad of Jean Ingelow's. I give the scheme for the first stanza: the student should then make a scheme for the other three stanzas according to this general type, — for which purpose the entire poem is subjoined.

SCHEME OF FIRST STANZA OF LIKE A LAVEROCK IN THE LIFT.



LIKE A LAVEROCK IN THE LIFT.

It's we two, it's we two, it's we two for aye,
All the world and we two, and Heaven be our stay.
Like a laverock in the lift, sing, O bonny bride!
All the world was Adam once, with Eve by his side.

What's the world, my lass, my love — what can it do?
I am thine, and thou art mine: life is sweet and new.
If the world have missed the mark, let it stand by;
For we two have gotten leave, and once more we'll try.

Like a laverock in the lift, sing, O bonny bride!
It's we two, it's we two, happy side by side.
Take a kiss from me, thy man; now the song begins,
All is made afresh for us, and the brave heart wins.

When the darker days come, and no sun will shine,
Thou shalt dry my tears, lass, and I'll dry thine.
It's we two, it's we two, while the world's away,
Sitting by the golden sheaves on our wedding day.

[1] A piece of music quite as commonly as otherwise begins with part of a bar, often the last note of a bar. This scheme does; the single note of such a beginning is called the anacrusis.

(2) The number of bars of the form $\frac{4}{8}$ 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 | in the last scheme, though the general prevalence of the dactyl-form $\frac{4}{8}$ 𝅘𝅥 𝅘𝅥𝅯 𝅘𝅥𝅯 | classes it with that species, shows how easily these two run into each other. In fact it is merely a division for convenience of discussion, — to treat these as separate forms.

The student cannot too carefully observe, however, that a large predominance of the form $\frac{4}{8}$ 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 | inevitably produces a comic effect. This is indeed the rhythm which humorous verse-makers in English find most to their hand. For example:

$\frac{4}{8}$ 𝅘𝅥𝅯[1] | 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 | 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 =
An | en-ter-tain-ing | hist-o-ry

= 𝅘𝅥𝅯 | 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 | 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 =
En | ti-tled "Saul a | Myst-er-y

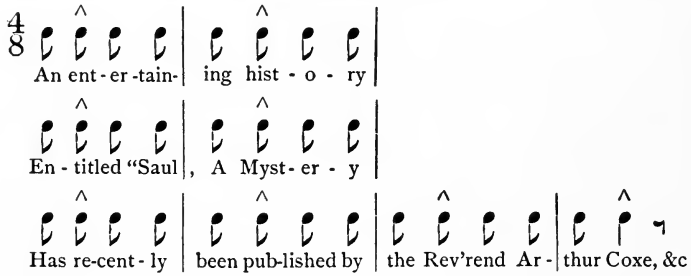
= 𝅘𝅥𝅯 | 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 | 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 | 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 𝅘𝅥𝅯 | 𝅘𝅥 𝅘𝅥𝅯 =
Has | re-cent-ly been | pub-lished by the | Rev'rend Arthur | Coxe

The foregoing scheme is purposely arranged to illustrate the custom of sometimes noting a given rhythm by using the anacrusis, or last note of the preceding bar, to begin each line. This method is used to preserve the line-arrangement of the verse: in the scheme just given, each line of the scheme corresponds with a line of the verse, which is arranged as follows:

An entertaining history
Entitled "Saul, A Mystery,"
Has recently been published by the Reverend Arthur Coxe, &c.

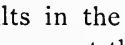
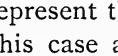
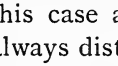
[1] Each of these lines is here written as beginning with an anacrusis. The notation might be different. It is a matter not of principle but of convenience. The advantages of each method are presently set forth. The anacrusis of every line except the first is seen to belong to the last bar of the preceding line, of which last bar it is the fourth 𝅘𝅥𝅯.

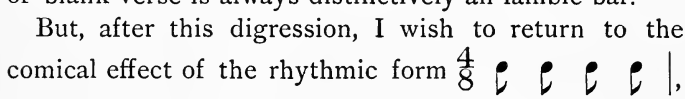
But the same object could be better accomplished by discarding the anacrusis entirely. The first sound "An" is unaccented; the second "en-" is accented; taking the sounds therefore by fours — for this is 4-rhythm — and accenting the *second* unit of each bar, the scheme when exactly written would be as follows:

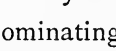


It is of advantage to use this last method, as most exact, whenever the lines invariably, or nearly always, begin with one unaccented syllable, as in blank verse where the student will observe it has been adopted. The only disadvantage of it is that many routine musicians are so accustomed to look for the accented note at the beginning of the bar that to find the second unit of every bar accented is perplexing. This is, of course, mere matter of habit. In beating time for the orchestra the director always makes a down-beat for the first note, or accented unit, of the bar: in interpreting a rhythmus like that of blank verse, or of the scheme just given, where the second unit is accented, all that is necessary is to make the down-beat on the accented note — that is, the second unit — instead of the first. Of course it is easily seen that by writing blank verse with the first unaccented note as an anacrusis, thus:

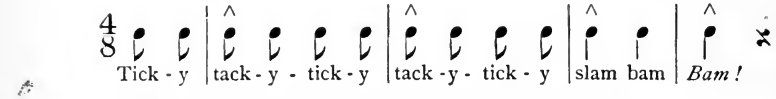
we can bring the accented note to the first place in each bar, as customary in music. But (1) this changes the form of each bar from the iambus to the trochee ; and (2) makes each line begin with the anacrusis, as if a new scheme; and, (3) what is worst of all, results in the fact that the bar of the scheme does not represent the real bar of the verse, the former being in this case a trochaic bar while the bar of blank verse is always distinctively an iambic bar.

But, after this digression, I wish to return to the comical effect of the rhythmic form  , when largely predominating over the equivalent form  in a poem, for the purpose of warning the student against using it except in a very careful way. Perhaps this warning may be most effectually conveyed through a scheme of the following piece of anonymous newspaper verse in which a most tragical sentiment is attempted to be conveyed in a rhythm almost entirely composed of  bars. The particular arrangement here adopted happens to be the rhythmus not only of the famous Pinafore song



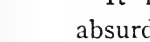
but also of the most popular dance of the negro-minstrels, preserving even the vigorous slam  at the end of the strain where the dancer brings the

entire sole of his foot down on the board with all the possible leverage of his leg, to the delight of the groundlings, his shuffle being of the exact form



The scheme of the first stanza is here given.

A SLAIN LOVE.

It is worth noting that this rhythmus which is so absurd in the comic song and the plantation dance differs but in minor particulars from the form  which Beethoven selected for the most reverend and pathetic of all his works, and which constitutes the grave rhythmic movement of the Iliad, of the Æneid, and of Lucretius' *De Natura Rerum.*

[1] An anacrusis of two notes instead of one. The anacrusis is only the remainder of a broken bar, and may be as many sounds as the bar will contain, lacking one.

[2] The mark = denotes that the bar is broken, its remainder being found at the beginning of the next line, as anacrusis.

CHAPTER VII.

OF THE THIRD AND FOURTH ORDERS OF RHYTHMIC GROUPING.

THE subject of secondary rhythm, or that species of sound-groups called the bar, has now been presented, in the discussion of the two great types of such grouping, 3-rhythm and 4-rhythm, with their respective subordinate forms. We therefore come to the next order of rhythmic groups which was called tertiary rhythm. This, as explained in the general outline which preceded the more special discussions, is a grouping together not of individual verse-sounds, but of bars, which are already groups of such sounds. It is, in other words, a grouping of groups. And inasmuch as these phrase-groups are mostly not so large as those which we call the line, they may be termed of the third order, while the line-group of bars may be termed of the fourth order.

It is not necessary to repeat here the explanation given of the manner in which the phrase-groups, the alliterative groups and the logical-accent groups are marked off for the ear. And the illustrations which have been incidentally given in the various schemes already presented will perhaps sufficiently acquaint the student with the manner in which these minor groups are made to relieve the possible monotony which might result from the invariable equality of bar with bar, and from the usual equality of line with line, in point of their time-value. In the manner of using this third

order of groups I do not think it well for the student to pay any attention to models beyond such as is necessary to understand the philosophy of the technical processes involved. The phrase-group, the logical group, the alliterative group, — these are matters of the subtlest individuality; it is in these that each writer must show the stuff of his own *ego:* in other matters of rhythm — the bar, the line — Shakspere and the anonymous newspaper versifier are alike confined by certain fixities; but these irregular groupings of the third order let down the bars and turn Pegasus out into the universe.

Considering the nature and function of these irregular groups therefore to have been sufficiently explained, and leaving students to work their own wills therein, without meddling with models, we may now pass to the

FOURTH ORDER OF SOUND-GROUPS — THE LINE.

The ear may co-ordinate one bar with more than one; two bars with two or more than two; three with three or more; and so on: and to this extent it may be said that a line may consist of any number of bars.

But the practice of English verse is to use (very rarely) two, (less rarely) three, (very commonly) four, (most commonly) five, sometimes six, seven, or eight, bars to the line. In other words the line, in English verse, usually ranges between the limits of two and eight bars, with a very great majority of four-bar and five-bar lines.

It has been before explained that the term metre has come to be associated, in a connection very familiar to all English-speaking persons, with the number of bars in a line, the hymn-book usually describing a given hymn or psalm as common metre, long metre, &c. This

term seems therefore well enough established to warrant its use as the peculiar designation of the line-group. "3-rhythm, iambic, 5 metre" for example would fully connote all the rhythmic phenomena of blank verse; and so on, the first term in such combinations always referring to the rhythm (trochee , iambus ,) and the latter figure to the metre.

It has been already explained how, in Shakspere's later dramatic dialogues especially, the line-group is often obliterated for the ear, either by run-on lines which carry over the separating pause into the body of the next line, or by phrase-groups which insert pauses within the body of the line. A great prevalence of run-on lines renders this obliteration so complete that, as remarked in the general outline, verse so treated is practically without metre, or line-grouping. I am strongly inclined to believe that English poetry might be a great gainer if we would at once frankly recognize this rhythmic but unmetric verse as a strictly-rhythmized prose, and print it as such without the deceptive line-division. Particularly in using the rhythm in English verse a certain finicalness attaches to a regularity of line-grouping: while if it be employed without lines, but merely in great masses of unlined prose, the effect is noble in the highest degree. A development of English rhythm lies, I feel sure, in this direction.

The habit of placing the rhyme — when rhyme is used — most commonly at the end of the line has made the rhyme a distinctive feature of the line-group for the ear, in English verse. Of course the rhyme could be placed

— and sometimes is, as in Poe's *Raven* — at other points in the line: and there is no reason for placing it at the end except the rhythmic function which it then discharges — of marking-off for the ear each rhythmic group of bars comprehended in each line.

This purely rhythmic office of rhyme does not seem to have occurred to Puttenham and several of his fellow-critics in the 16th century, who were in the habit of using the term "rhyme" as the very antithesis of "rhythm." A strong party had grown up in Puttenham's time who were for doing away with "rhyme," in favor of "rhythm," the latter being treated as a term referring to blank verse or to English hexameters. Of course the contempt which some of them felt for "rhyme" was due as much to the abuse of it which had been made by finical poetasters as to their unconsciousness of the rhythmic powers of rhyme. If a line-group is to be marked-off for the ear — and such a group is marked-off by every end-stopped line — there is certainly no reason in the nature of things why it should not be marked-off with rhymes, as well as with mere rests: the rhyme marks it off quite as clearly and more agreeably, by being itself an independent source of pleasure to the ear; just as one might mark-off the miles of a road with marble statues instead of ordinary mile-stones, the statues at once discharging the function of mile-markers (that is, the rhythmic function) and of pleasure-givers on their own account to the eye. In this connection it is interesting to find the word "rhyme" used for "rhythm" before Puttenham. Ormin (also called "Orm"), writing probably early in the 13th century, says, in dedicating *The Ormulum* to his brother Walter,

Ic hafe sett her o thiss boc
I have set here in this book

Amang Godspelless wordess,
Among Gospel's words

All thurrh me sellfenn, manig word
All through my self, many (a) word

The rime swa to fillenn.
The rime so to fill:

and inasmuch as rhymes occur only here and there while the rhythm of the poem is skilfully carried out everywhere, he must mean that he has set here in this book many a word to fill the rhythm.

The subject of rhyme as rhyme — that is, as a pleasure of the ear dependent on tone-color and unconnected with rhythm — is treated in Part III. under the title "Colors of English Verse."

Since the 16th century the favorite lines of English verse have been almost entirely 4's and 5's. During that century, however, a great deal of poetry was written in the long 12's and 14's, as they were called from the number of syllables in alternate lines, like the following lines of Queen Elizabeth's poem (notice the pause in the middle of the first line and of every alternate line thereafter, which Puttenham comically calls a "Cesure"):

The fear of future foes, exiles my present joy,
And wit me warnes to shun such snares as threaten mine annoy.

This was called "poulter's measure," as Gascoigne quaintly informs us, because the "poulters," in selling, were in the habit of giving twelve for the first dozen and fourteen for the next, and so on.

Other sorts of lines had acquired special designations at this time. Puttenham calls the metre in which the *Canterbury Tales* are written "Riding Rime," and that of Chaucer's *Troylus and Cryseyde* "meetre Heroicall." Gascoigne and others term "Rithme Royall" the stanza in which each verse — their "verse" here meaning our "line" — has "tenne sillables, and seven such verses make a staffe" (stanza), "whereof the first and thirde lines do awnswer (acrosse) in like terminations and rime, the second, fourth, and fifth do likewise answere eche other . . . and the two last do combine and shut up the sentence." It is the stanza of Chaucer's *Troylus and Cryseyde*, and of King James's *The King's Quhair.*

CHAPTER VIII.

OF THE FIFTH ORDER OF RHYTHMIC GROUPS. — THE STANZA.

As the line is a group of smaller groups (or bars), so the stanza is a group of the line-groups.

A stanza — often called a "verse" in the common speech of the present day — may be a group of two, three, or any number of lines, in English verse. Perhaps I should say in English verse since the 16th century: for it is evident that Puttenham had never seen stanzas of two or of three lines. He says: "The shortest staffe" — by staffe he means stanza — "conteineth not under foure verses," [1] — using "verses" in its classic sense as lines.

But we have poems in stanzas of two lines, as Tennyson's *Locksley Hall*, of which the first stanza is,

> Comrades, leave me here a little, while as yet 'tis early morn;
> Leave me here, and when you want me, sound upon the bugle horn.

And we have poems in stanzas of three lines, as Tennyson's *The Two Voices*, of which the first stanza is,

> A still small voice spake unto me,
> "Thou art so full of misery,
> Were it not better not to be?"

or as Miss A. C. Thompson's perfect little *Song of the Night at Dawn*, of which the first stanza is,

[1] *Arte of English Poesie*, p. 79, Arber Reprint.

Whither shall I run
Till the set of sun,
Till the day be done?

Besides these we have poems in stanzas of four lines, too common to need illustration; of five lines, as Tennyson's *On a Mourner;* of six lines as Shakspere's *Venus and Adonis;* of seven lines, as Chaucer's *Troylus and Cryseyde,* or Shakspere's *Lucrece;* of eight lines, as Tennyson's *Charge of the Light Brigade;* of nine lines, as Spenser's *Faery Queen;* and so on.

The *Faery Queen* by the way was not known to Puttenham, whose quaint argument against five lines to the stanza would apply equally well to the nine-lined stanzas of that poem: "A staffe of five verses," he says, meaning a stanza of five lines, "is not much used because he that can not comprehend his periode in foure verses, will rather drive it into six then" (than) "leave it in five, for that the even number is more agreable to the eare then the odde is."

We are therefore practically without limitation as to the number of lines in any stanza of English verse.

There is however one form of stanza which has remained a strictly-specialized form ever since its introduction into English by Surrey and Wyatt in the earlier part of the 16th century, and which, as such a strictly-specialized form, as well as by virtue of its remarkable fitness for particular purposes, must claim separate mention under the present head. This is the form known as

THE SONNET.

The sonnet is always one stanza of fourteen lines. These lines are iambic 5's, rhymed according to fixed rules. Of these rules there are two sets, governing

respectively (1) the Italian, or Legitimate, sonnet, and (2) the English, or Illegitimate, sonnet.

(1) The Italian sonnet is so called from the fact that this form of stanza was imported into our language from the Italian; and the synonymous term "legitimate" is applied to it because soon after its introduction another form of fourteen-lined stanza began to be used in which the succession of rhymes was different in order from that authorized by the Italian laws for this sort of verse; and to distinguish the two one was called the Italian, or Legitimate, the other the English or Illegitimate, sonnet. The Italian is often called, also, the "Strict" form of the sonnet.

The order of rhymes in the Italian, legitimate, or strict, sonnet may be gathered from the following beautiful example of this species of poem by Sir Thomas Wyatt. The order as to the first eight lines is always that presented in this poem: but the last six lines may be varied in the order of their rhymes so far as to rhyme either in couplets or triplets, and so far as to allow the rhymes to be either successive, alternate, or three apart. The first eight lines of this Italian sonnet are often called the "major portion," and the last six lines the "minor portion;" we find the major portion often separated, in printing, from the minor portion, by a space; and some have even gone so far as to hold that there should be a certain change of sentiment on passing from the major portion to the minor portion. This seems, however, to be a somewhat finical regulation, and without any particular authority. It may be remarked, however, that every sonnet, whether legitimate or illegitimate, ought to be really a little drama, with every idea in every line converging directly upon some

special idea in the last two lines, like rays of light into a focus. A good sonnet should always therefore be read with a certain suspension of the reader's thought until the end is reached, and the end should always throw back a new and comprehensive interest upon all that precedes it.

SIR THOMAS WYATT'S "NOLI ME TANGERE"[1] SONNET.

MAJOR PORTION.

First Quatrain.

Who list to hunt? I know where is an hind
But as for me, alas, I may no more,
The vain travail hath wearied me so sore;
I am of them that furthest come behind.

Second Quatrain.

Yet may I by no means my wearied mind
Draw from the deer; but, as she fleeth afore,
Fainting I follow. I leave off, therefore,
Since in a net I seek to hold the wind.

MINOR PORTION.

Who list her hunt, I put him out of doubt,
As well as I, may spend his time in vain;
And, graven with diamonds in letters plain,
There is written her fair neck round about:
"Noli me tangere; for Cæsar's I am,
And wildè for to hold, though I seem tame."

Here it is seen that in the major portion the 1st, 4th, 5th, and 8th lines rhyme together, and the 2nd, 3rd, 6th and 7th lines rhyme together; while in the minor portion the first four lines present alternate rhymes, and the last two make a couplet.

[1] It has been thought that Wyatt loved Anne Boleyn, and wrote this sonnet with cunning hints as to his dangerous rival Henry VIII.

(2) The English, illegitimate, or free, sonnet preserves all the strictness of the Italian so far as concerns the law of fourteen iambic 5's; but has its rhymes in the order displayed by the following sonnet of Henry Howard, Earl of Surrey, the co-worker of Wyatt in introducing this species of verse into English. This sonnet is a translation from one of Petrarch's.

Love, that liveth and reigneth in my thought,
That built his seat within my captive breast,
Clad in the arms wherein with me he fought,
Oft in my face he doth his banner rest:
She that me taught to love and suffer pain,
My doubtful hope and eke my hot desire
With shamefaced cloak to shadow and restrain,
Her smiling grace converteth straight to ire:
And coward Love then to the heart apace
Taketh his flight, whereas he lurks and plains
His purpose lost, and dare not show his face.
For my lord's guilt, thus faultless, bide I pains.
Yet from my lord shall not my foot remove:
Sweet is his death that takes his end by love!

This form of the sonnet has become sacred to all serious people since the heavenly series of private prayers and confessions which Shakspere whispered in it.

THE SONNET IN ENGLISH POETRY.

For this purpose, the sonnet has come to be an acknowledged and set method in English. During the last three hundred years, whenever an English poet has had any personal and holy matters which he could not refrain from putting into form, he has mostly adopted the sonnet — one or other species of it — for that form. Each sonnet is like a letter from the poet to you, marked "confidential" at the top. Of this personal

nature are many beautiful series of sonnets in English: those of Wyatt and Surrey; Constable's *To Diana;* Griffin's *To Fidessa;* Drayton's, called *Ideas;* Daniel's, *To Delia;* Habington's, *To Castara;* Drummond's, to his Beloved who died before their marriage; Spenser's *Amoretti,* to his Beloved; with many separate ones, of Donne, Milton, Wordsworth, Keats, Mrs. Browning, Tennyson, Longfellow, Gray, Allingham, Rossetti, Bryant, Taylor, Boker, Hayne, Timrod, Mrs. Kemble, Gilder, and others. It is curious to observe that some have nearly approached poethood in the sonnet who have remained hopelessly below it in other forms, particularly certain Elizabethans, whose longer works were diluted beyond the point of poetry by a wordiness — the besetting literary sin of the 16th century — which could not be indulged within the limits of a sonnet.

Above all works in this kind are Shakspere's sonnets, of which the first one hundred and twenty-six are revelations of friendship, and the last twenty-eight of a curious sort of love. Of course, to the young student these sonnets must be mostly dark; but to the older soul they become as light itself; and perhaps it might be said without strain that one's love and reverence for Shakspere's sonnets and one's delight in them may fairly be taken as a gauge of the exaltation of one's growth, so that the higher and sweeter we are, just so much deeper is our private glory in these wonderful modern psalms of the person.

It ought to be added that among many Elizabethan critics and authors the most confused notions prevailed as to what constitutes the sonnet. In the old collections such as *The Handfull of Pleasant Delites, The Paradise of Dainty Devices,* and the like, many poems

appear as "A Proper Sonet" or "A Sonetto" which have no resemblance to the sonnet whatever, and are mere lawless lyric poems. The name sonnet comes from the Italian *suonare*, to sound, and appears to have been given from the circumstance that the sonnets were originally written to be sounded in recitation, — that is, chanted and accompanied by a musical instrument mainly by the lute.

The student interested in pursuing the history of the sonnet in Italy will find a pleasant account of it by Leigh Hunt in *The Book of the Sonnet*, published by Roberts Brothers, Boston : though one cannot cite this work without mentioning the wholly pitiful and unworthy showing it makes of the sonnet in the 16th and early 17th centuries. It is in fact a disgrace to our tongue that we have no collection of the English sonnets which is even tolerable, although the sonnet is really the primordial form of modern English lyric poetry ; and it is a result of this circumstance that the prodigious wealth of our language in beautiful works of this genre is almost unknown except to the professional worker among books

CHAPTER IX.

OF RHYTHM THROUGHOUT ALL THOSE MOTIONS WHICH WE CALL "NATURE."

CRIES the Ass in *A Midsummer Night's Dream:* "I have a reasonable good ear in music: let's have the tongs and the bones."

This selection of instruments is a cunning illustration — and all the more cunning that it was wholly unpremeditated as to its present application — of the wide possession of the rhythmic faculty by all classes of men from highest to lowest in culture. The tongs and the bones are rhythmic instruments, exclusively: they are incapable of tune (change of pitch) and of any variation in tone-color; but they can mark-off rhythms for the ear, and so even an ass might enjoy them. There are many men who appear to have no perception of melody, — that is, of relations of pitch between successive single tones; and more who have no perception of harmony, which is a more subtle kind of pitch-relation between simultaneous groups of tones heard in succession. But among the rudest nations, and long before any conceptions of music proper have developed themselves, we find instruments devoted to the sole purpose of marking-off and accentuating rhythmic intervals of time. These are the percussive instruments, such as drums, gongs, triangles, jawbones, cymbals, various forms of castanets, and the like. Successive blows upon any one of these instruments

perform exactly the same office for the ear as that which is performed by all those agencies which we have seen marking-off the rhythms in English verse. Perhaps the very earliest form of marking-off rhythms is one which exists in our own country to the present day. I mean the "patting" of the Southern negroes. This method of indicating rhythms merely with the interplay of strokes between hands and thighs, feet and floor, is capable of a considerable degree of complexity; and I remember when a boy among the Southern plantations to have seen negroes excited to a frenzy of delight in dancing to no other music than that purely rhythmical form of it afforded by the patting of hands and feet. The degree of what musicians call "attack," and the intensity of a certain fiery indescribable spirit found in Chopin's music (that which Liszt calls by the untranslatable word "zäl") which these strange people exhibit in their patting dances by a lightwood fire when the day's work is done, would be, I think, almost incredible to one who has never seen them. This is but another illustration of the felicity with which the Ass cries "Let us have the tongs and the bones." These are purely rhythmical instruments.

But rhythm not only thus appears as perhaps the widest artistic instinct in man: it would seem to be a universal principle throughout nature. Perhaps every one, in these days, is more or less familiar with the complete way in which modern physical science has reduced all that enormous and complex mass of phenomena which we call physical nature to a series of motions. Older conceptions of substance as opposed to form have resolved themselves into the general conception of force producing motion in certain modes.

It would seem that the general primordial mode of all these motions which we assemble under the general term "nature" is rhythm. The essential principle of rhythm — the student must have observed — is recurrence at an interval of time which furnishes a unit of measure by which all the times marked-off by the recurrences may be co-ordinated. Mr. Herbert Spencer claims to have observed such a prevalence of this rhythmic periodicity throughout nature as to convince him that it is universal: and states that this belief is shared by Mr. Tyndall. It would indeed seem that every thing moves to measure (ῥυθμὸς). The spiral distribution of the remote nebulæ hints at rhythmic motion: the variable stars brighten and pale at rhythmic intervals; planet, satellite, comet, revolve and return in proportionate periods; the seasons, the magnetic variations, the sun-spots, come and go, orderly; the great tides in the sea, the great trade-winds in the air, flow by rhythmic rule; the terrible sawyer in the Mississippi marks a vertical rhythmus, the sweet long grasses in running brooks a horizontal one; the lungs of the man, the heart of the beast, the cilia of the animalcule, play to and fro with rhythmic systole and diastole.

And even those forms of motion which seem at first view most lawless appear to range themselves under this orderly principle at last. Storms, earthquakes, upheavals of continents, recessions of waters, would seem to show some traces of recurrence at ordered intervals. Even disease, — as I am informed by observant physicians, — the more it is studied, appears to show the tendency to take on this yoke, from the well-marked periodicities of the ague to the vaguer and

more baffling exacerbations and remissions of obscure fevers and ills. And so from the prodigious recurrences of the great worlds in space which are measured by ages, to the inconceivably rapid recurrences of the vibrating string or air-column in the production of sound which are measured by thousandths of a second, or those of the ether in the production of light which are measured by hundredths-of-thousandths of a second, everywhere we find rhythm.

One of the most striking similes in all literature involves this rhythmic idea. Edgar Poe, in his fantastic *Eureka*, after having detailed the process of the primal diffusion of matter in space, the aggregation of atoms into worlds, the revolution of these worlds for a time, their necessary return after that time into the central sun, and the then necessary re-diffusion of the atoms into space, again to aggregate into worlds, to fall into the central sun, and to be again re-diffused — ever contracting, ever expanding — closes his raptus of thought with declaring that this prodigious process is nothing more than the rhythmic beating of the heart of God.

It is curious, indeed, to find another assertion in this connection, almost as vague as Poe's dream, meeting confirmation in the exacter views of modern science. Puttenham, in beginning his chapter "Of Proportion Poeticall" says: "It is said by such as profess the Mathematicall sciences, that all things stand by proportion, and that without it nothing could stand to be good or beautiful. The Doctors of our Theologie to the same effect, but in other termes, say: that God made the world by number, measure and weight: some for weight say tune, and peradventure better."

And there is yet a more general view of the rhythmic principle which hints that this proportion in which the worlds move and by which "things stand to be good or beautiful" is due to antagonism. Mr. Herbert Spencer has formulated the proposition that where opposing forces act, rhythm appears, and has traced the rhythmic motions of nature to the antagonistic forces there found, such as the two motions which carry the earth towards, and away from, the sun and so result in the periodicity of the earth's progress, and others.

Perhaps this view may be made, without strain, to bind together even facts so remote from each other as the physical and the moral. When we compare what one may call the literal rhythm which rules throughout physical nature with that metaphorical rhythm or proportion which governs good behavior as well as good art; when we find that opposition in the physical world results in rhythm, and that so opposition in the moral world — the fret, the sting, the thwart, the irreconcilable me as against all other me's, the awful struggle for existence, the desperate friction of individualities, the no of death to all requests — may also result in rhythm; when we perceive that through all those immeasurable agitations which constitute both moral and physical nature this beautiful and orderly principle of rhythm thus swings to and fro like the shuttle of a loom and weaves a definite and comprehensible pattern into the otherwise chaotic fabric of things: we may be able to see dimly into that old Orphic saying of the seer, "The father of metre is rhythm, and the father of rhythm is God."

PART II.

THE TUNES OF ENGLISH VERSE.

CHAPTER X.

OF TUNE IN SPEECH: ITS NATURE AND OFFICE.

THE preceding chapters of Part I. have been devoted to discussing all those various co-ordinations of duration in verse-sounds which we are in the habit of assembling under the general name of rhythm. It is earnestly asked that the foregoing discussion should not be considered exhaustive. It is in fact but an outline, confined by the necessary limitations of an elementary work like the present, and intended only to furnish the student with such an outfit of facts and principles as will serve for pursuing farther researches. It can claim no more completeness than is implied in the endeavor to show that the study of rhythm is at once more extensive and more fruitful than is apt to be thought by those whose attention has not been specially called to this subject.

We are now to investigate a class of phenomena which differ widely from those of rhythm and which appeal to some of the subtlest and least understood operations of the human soul. It was stated in the outset that the employment of the physical means of duration, pitch, intensity and tone-color produced a great variety of

poetic effects which fall under one or other of three great classes, namely,

I. The rhythms
II. The tunes } of English verse.
III. The colors

Part II. is to treat the second of these classes — the tunes of English verse. In doing so it will be necessary to call attention first to the tunes of ordinary talk, or speech-melodies.

If one had not otherwise learned to appreciate the completeness with which habit can overlay and cover up phenomena that assail our senses a thousand times an hour, one would be astonished to find that many persons are sceptical upon being told that ordinary talk is a series of tunes and that the greater part of expression is carried on by means of melodies rather than words. Most persons associate the idea of melody solely with musical performances, and the term usually suggests either a musical instrument or the singing-tone of the voice.

In point of fact, (1) tunes — melodies, distinctly formulated patterns of tones varying in pitch — exist not only in poetic readings, but in all the most commonplace communications between man and man by means of words.

(2) Further: every affirmation, every question, has its own peculiar tune; every emotion, every shade of emotion, has its tune; and such tunes are not mere accidents but are absolutely essential elements in fixing the precise signification of words and phrases.

(3) Further still: these tunes not only affect the signification of different words, but they greatly modify

the meaning of the same words, so that a phrase uttered according to one tune means one thing, according to another tune another thing.

These propositions are now to be illustrated.

Before doing so, it will save trouble to clear up a certain very vague sense in which the terms "melody" and "harmony" are often used as to verse, — a sense wholly different from that intended in the present discussion. We hear often of "melodious" verse, or "harmonious" verse: in such expressions the meaning always has reference simply to the rhythmic structure, — "melodious" or "harmonious" verse in this sense being simply verse that flows along smoothly and pleasantly in its rhythmic movement.

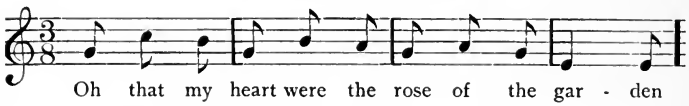
But in any precise use of terms "rhythm" and "melody" and "harmony" have the widest differences in their signification. It is easy to bring these differences clearly before the mind by the system of notation which has already been employed in part.

Observe that rhythm, or the differences in duration of notes, may be noted on a single straight line, or no line at all: thus in

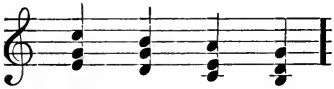
there is no occasion to place the notes in any particular vertical relation to each other, the rhythmical relations being all denoted by those shapes of the characters which indicate their relative duration.

But if we should wish to place the above notes in relations of *melody:* if we should wish to add tune to their rhythm, — that is to vary their pitch as well as

their duration, — we must now use more than one line in the musical system of notation, thus:



by comparing which, bar for bar, with the other, it is perceived that while the rhythm has been exactly preserved — there being three eighth-notes in each bar — the pitch of each tone has been varied, so that what was before a mere pattern of durations, or rhythm, is now that and something more, to wit, a pattern of pitch, — that is, a tune or melody.

But — relations of rhythm and tune being thus discriminated — relations of harmony must on the other hand be distinguished from those of melody with equal care. Melody consists of tones, differing in pitch, struck successively: while harmony consists of tones differing in pitch struck simultaneously, or chords: as  . This distinction will be found assuming a position of great interest in certain connections which will presently engage attention.

Such being tunes or melodies: in order to understand the wonderful parts they play in ordinary speech, let us analyze the mental and physical processes upon which a certain little German comedy called "Come Here!" is based. This comedy admirably illustrates the extent to which the meaning of the same words can be varied by uttering them in different tunes, and the curious manner in which these tunes are recognized by all persons as conveying certain definite significations.

The plot of the comedy mentioned is as simple as possible. An old theatrical manager is testing the capacity of a young actress who seeks an engagement. The whole play is based upon the two words "Come here:" the manager, in order to try the genius of the actress, explains to her a certain situation hinging upon the words "Come here," and tells her to express the whole situation by the manner in which she utters these two words. Then a wholly different situation is suggested, which she must express by uttering the same words to a different tune: then another, and so on, the entire action of the piece being thus carried out by ringing the changes upon these two words "Come here." The number of these changes far exceeds the belief of any one whose attention has never been specially drawn to the subject.

Now (1) the possibility of such a comedy is evidently based upon the facts already asserted: namely, that in some way men have associated a certain tune of the speaking-voice with each emotion, and that when the tune is heard, the emotion is recalled. But, secondly, the possibility of such a comedy entirely dissipates the vague terms "intonation" and "inflection" which by their very incompleteness have so long concealed from view the real nature and office of the tunes of speech. For these terms are based upon the underlying idea that the variations of pitch which accompany uttered words are merely casual and lawless, and have no fixed connection with the words which they accompany. The play just cited shows, by the crucial test of actual experiment, that precisely the opposite of these vague ideas is true, namely, that the variations of pitch which accompany all spoken words are, in the strictest sense of the

term, tunes: that they are definite successions of tones, so definite as to be remembered and reproduced by the actress (in the case given) and as to be remembered and instantly recognized by the audience: for how else would the propriety of each different tune to each different situation be discovered by the hearers, the words always remaining the same? Nothing can be more irresistible than the logical inference from this comedy that somehow — exactly how, would be too subtle an inquiry for this place — it has happened that certain fixed successions of tones varying in pitch — that is, certain fixed tunes — have been from of old associated with the emotions expressed in this play, and that when the actress uttered the proper tune, the audience invariably recalled the emotion with which it is associated.

We may now illustrate the same fact on a wider scale, from another direction. In order to show how unconsciously and universally we associate tune with any utterance in the speaking-voice, let us consider the effect when tune is absent from such utterance. This effect is always, in tendency at least, to produce the impression of either the idiotic or the supernatural.

(1) The idiotic effect may easily be illustrated by a trivial example, — and the more trivial the better, as showing the association of fixed tunes with all the most commonplace and familiar talk of men. Recall, for instance, and imitate aloud, the absolute monotone with which the very young schoolboy pronounces the following words, when he is learning to read. Fancy him standing at the teacher's knee, his brows puckered with concentration, his attention so completely fixed upon the unfamiliar forms of the words which he is painfully spelling out letter by letter between each

utterance that he really utters them without the least idea attaching to any of them, and, since without idea, therefore without tune. This tuneless speech makes an impression which every one recognizes as idiotic. "The . . . cat . . . ran . . . at . . . . the . . . . rat . . . and . . . . . ate . . the . . . rat. . . . The . . . rat . . . ran . . from . . . . the . . cat &c." These words have, as I say, no meaning for him, because he is thinking of the words themselves, not of the ideas which they symbolize and therefore he utters them without their tune; but when he gets back to his desk, and has occasion to speak ideas, he will be sure to speak them in a certain tune; as, for example, the tune of indignant protest and demand, when he finds that in his absence his desk-mate has wilfully and feloniously appropriated his goods: "You, Johnny Smith, give me my apple!" a tune which every one can imitate.

(2) Such being the idiotic impression conveyed by words without tune in the high squeak of the boy's voice: words without tune in more sonorous and dignified tones of a man's voice may be made to convey the impression of the unnatural, even the supernatural. This the reader may illustrate by uttering in an absolute monotone the speech of the ghost in *Hamlet*, and contrasting this monotone with the ever-varying tune in which Hamlet must utter the interjections of tenderness and of horror which occasionally interrupt the ghost's speech. The result will very clearly prove the point now in hand: the monotone of the ghost, that is, the absence of tune from his utterance, freezes us with a sense of the unnatural, while the fervent tunes of Hamlet's brief cries remind us unconsciously of our human kinship with him.

In order to place the mind in a proper attitude towards the true nature of the tunes of speech, let the reader endeavor for several days to concentrate attention upon the variations of pitch which accompany ordinary conversation. At first, the keenest ear finds it difficult to do consciously that which we all do unconsciously; but presently this difficulty will vanish, and the explorer will straightway discover a new world of tune. The unconscious melodies of the speaking-voice are indeed subtle and beautiful beyond description, and the habit of consciously co-ordinating them is a prodigious gain to the ear's field of pleasure.

Once upon the track, the reader will doubtless begin presently to recall a thousand cunning effects in speech based wholly upon tune. To give a few examples of these, before proceeding to other considerations: consider the happy way in which the tunes of speech are used by the clown in *All's Well That Ends Well* to give all manner of different meanings to the words "O Lord, sir." The clown contends that this is an answer of the greatest service at court, for that it will fit every occasion.

CLOWN. . . . But, for me, I have an answer will serve all men.

COUNTESS. Marry, that's a bountiful answer, that fits all questions.

. . . . . .

CLOWN. From below your duke to beneath your constable, it will fit any question.

COUNTESS. It must be an answer of most monstrous size, that must fit all demands.

CLOWN. But a trifle neither, in good faith, if the learned should speak truth of it. Here it is, and all that belongs to it: . . . ask me, if I am a courtier . . .

COUNTESS. . . . I pray you, sir, are you a courtier?

CLOWN. *O Lord, sir!* — there's a simple putting off. — More, more, a hundred of them.

COUNTESS. *Sir, I am a poor friend of yours, that loves you.*

CLOWN. *O Lord, sir!* — Thick, thick, spare not me.

COUNTESS. *I think, sir, you can eat none of this homely meat.*

CLOWN. *O Lord, sir!* Nay, put me to 't, I warrant you.

COUNTESS. *You were lately whipped, sir, as I think.*

CLOWN. *O Lord, sir!* — Spare not me.

. . . . . .

COUNTESS. I play the noble housewife with the time,
To entertain it so merrily with a fool.

CLOWN. O Lord, sir! — Why, there 't serves well again.

Here each of the clown's ejaculations is uttered in a different tune, namely:

The 1st in a tune which means *Of course, I am;*
" 2nd " " " " *Oh, — another suitor;*
" 3rd " " " " *I'll condescend to try;*
" 4th " " " " *And soundly, too;*

and so on.

Or, again, every one can perhaps recall when one's letter has been misread as to the tune of some phrase, with the result of heart-burning and bitterness; or how often a quarrel between neighbors, in being traced to its source, has been found to flow from the gossip's report of what Mrs. Smith said of Mrs. Brown in a different tune from that actually used in the utterance, for, even though the words were reported exactly as uttered, unless the tune were also reported exactly as given, the whole meaning would be changed, and a sympathetic exclamation might easily be converted into a derisive sneer.

The extravaganza printed in children's books is here directly in point, for when analyzed, its basis is clearly

the unconscious recognition of the wonderful manner in which tunes change the meaning of words.

A certain king sent to another king, saying: "Send me a blue pig with a green tail, or" . . . The other king replied, "I have none; if I *had*, I . . ." Hereupon ensued a great war; and after many thousand persons were killed, the two kings, coming together by accident, discovered that the first king's message was only this: "Send me a blue pig with a green tail, or . . . a green pig with a blue tail:" and that the second king's reply was: "I have none: if I had, . . . I would send it."

Upon analysis, we find the plot of this story to be based upon the circumstance, taken for granted, that even the child who reads it will understand the wrong tunes in which these messages were reported, each being in the tune of a threat instead of the tune of a request.

Or again what lawyer in tracing the astonishing contradictions which equally credible witnesses often give to each other's testimony has not found them due to the failure of one or other witness, — or both, — to give correctly tunes as well as words.

But when, leaving these broader and more striking tunes of everyday speech, we come to consider the extremely delicate shades of meaning which can be imparted to every phrase and sentence by slight variations in its customary tune, we are met with a truly wonderful series of phenomena. If the reader will examine closely the conversation which goes on between daily intimates such as friends, husband and wife, and the like, who have thoroughly learned each other's habitual tunes of speech, it will be found that

the words used in their communications to each other, if taken without these tunes, would bear the strangest relations to the matters in hand in the great majority of instances. All the most subtle complexities of passion, of petulance, of satiric under-meaning of affection, of humor, are expressed in this way. Relying upon the examples already given to recall to every one's mind innumerable instances of this sort, perhaps it will not be necessary to delay longer upon these preliminary illustrations, and the reader may be now prepared to see for himself that in point of fact words form the smaller element in language. In truth our modern life is so complex that we could never get along with mere words. Existence is so many-thoughted, conscience is so cunning, passion is so refined, men's relations to nature are so subtle, wit is so knowing, humor is so deep, — in this nineteenth century that the few thousand words of our English vocabulary, rich as that is, would leave us dumb half the time if we could not say them in manifold and expressive tunes which multiply their meanings.

But, having thus called attention to the fact of these tunes, it is now time to discuss their artistic application in verse and to analyze their nature.

Within quite recent times the world has seen what we may fairly call a new art rising in our midst, based upon the tunes of speech. Consider for a moment what a remarkable exhibition it is when a single person — a woman, for instance, like Charlotte Cushman — presents herself on the stage of a theatre or concert-room, not to sing, not to play, but to entertain the audience with what we call "readings," or recitations. Now these "readings" are really nothing more than performances

of speech-tunes. We can all take *Macbeth* in the printed copy and read the words for ourselves; but we gather in crowds to hear those particular tunes of speech in which Miss Cushman will embody these words. Here, simply by the melodies of speech which in their crude forms I have tried to recall by several instances, she reproduces before a popular audience a whole play of Shakspere with all its complex elements of situation and of character. In truth there are many persons who derive more pleasure from hearing a play of Shakspere's thus reproduced through the medium of speech-tunes than in seeing it rendered with all the properties of the stage. For the realistic limitations of even the best stage-setting are very great, and grow daily more and more intolerable to the modern man: it is getting to be very hard to forgive the four roustabouts in jackboots who personate the army, and the rosin and dried pease which make the lightning and the rain. Moreover in the "reading" the whole play is rendered with a symmetrical evenness not to be obtained in a time when it is the custom of managers to present one good actor, or "star," "supported" by merely wooden people. When Charlotte Cushman reads *Macbeth*, for instance, it is really a great cast: for — as the bills would put it — we have

Macbeth . . . . . CHARLOTTE CUSHMAN
Lady Macbeth . . . . . CHARLOTTE CUSHMAN
Duncan . . . . . CHARLOTTE CUSHMAN
The Porter . . . . . CHARLOTTE CUSHMAN

and so on, through the *dramatis personæ*.

It may now be of profit to pass lightly along a line of inquiry which seems to reveal that the speech-tune has but recently segregated itself as an art from the main

stem of music proper; that it is an art in its infancy, which we may observe actually rising among us at the present day; and that it is destined to noble and beautiful extensions in the future. If the reader will follow for a few moments the remarkable course of development which music has pursued through its three great epochs of the antique music, mediæval music, and modern music, it will be seen that we can trace with great clearness, all along, the ever-increasing tendency of poetry to split away from music and to become a wholly separate art with wholly separate methods.

A fact which must have come within the experience of the most cursory observers meets us at the outset of this inquiry, and furnishes a clew which guides us along its whole extent. This is the comparatively little importance which the words of a modern song bear to the tune of it. We shall find, in point of fact, that the whole line of musical tendency has been to discard words as words — or vehicles of ideas — and to use them purely as vehicles of tone, without reference to their meaning: while on the other hand poetry, pursuing similarly its own course, has tended to relieve itself from all dependence on, or association with, music, and to rely upon the more subtle and practicable tunes of the speaking-voice.

Thus when we find — as all do who attend the average modern concert — that in the vocal part of the performance the words are of little importance; that they are indeed very often in some foreign language not understood by the great majority of the audience; and that, when not so, the music is commonly of such a complex nature as to require a pronunciation which renders them quite unintelligible; we can understand the signifi-

cance of the fact. It is not — as many are apt to think — a mere temporary affectation or carelessness on the part either of composer or singer. It is really one phase of that differentiating process we are now to trace, which has resulted in the complete independence of music on the one hand and of poetry on the other, the former having found its fullest expression in the purely instrumental symphony, while the latter finds its fullest expression in the purely vocal tunes of the speaking-voice.

A brief historic outline of the relations of music to poetry will show us not only how the speech-tune art is the result of natural development, but how its rise was to be expected at the present time, from the conditions at which music and poetry have now arrived.

There are three strongly-marked epochs in the history of music which logically arrange themselves into the

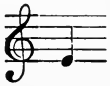
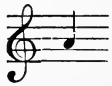
Antique,
Mediæval,
and
Modern,
} Periods.

These periods are not so called merely to identify them with the corresponding periods in man's political and social history, but on account of striking and inherent differences in the stages of music itself. It is true that these are all connected, in the closest manner: whenever a change occurs in the condition of men, political, social or other, a change will also occur in the art predominant during that time: for, little as it may seem to busy contemporaries, a vital union exists between the art of any time and the common life of any time, and one may say with truth that symphonies and

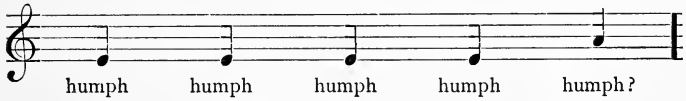
paintings, like marriages, vary with the price of corn. In our rasping life of trade we are apt to imagine that art is of little account after all, and that the poor artist who is sitting off in his narrow ill-furnished room writing his poem or jotting down his symphony is a pitiful cipher quite out of the actual march of important affairs. It always seems so, while we listen to the noise of trade on the pavements. But men do not really think so, and they have shown in a thousand ways that they do not. One can hardly recall a more vivid illustration than that Aldhelm of whom mention was made early in this book. This Aldhelm standing on the bridge, — as the story goes, — singing ballads and sweet gospels to the traders as they passed by, was likely a pitiful enough figure to the practical men. But when the years roll by, we see well enough what the ages — what the people — really hold as valuable: for now we do not know even the name of the richest merchant who passed the bridge, but generation after generation has preserved not only the name of Aldhelm but many particulars of his life, and all the wealth of those who passed him on the bridge would now be given for one of his songs.

Without however being able now to trace how the common life of a time connects itself with and colors the art of the time — and most especially the music of the time — the main features which characterize the music of these three periods may be now developed. As the old Egyptian devotee sings, dances and perhaps plays some musical instrument before his God, we find the three arts of music, poetry, and dancing united in the closest bonds. The words or poetry of the song, the music of the song, and the dance, are of equal importance in the artistic act as a whole. As we

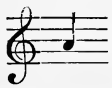
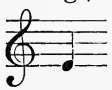
come down in time, first the dance splits off from the union and becomes a separate art. Among the Jews the triple union is preserved for some time: David danced before the ark, and there are several records of similar religious art among his people. Even in the Greek period dancing is esteemed as a fine art on equal terms with the others. But here an interesting change begins to show itself. While the art of dancing has confirmed its individual existence, a process of separation begins to show itself between music and poetry — the two other members of the once triple union. The first phase of this differentiation exhibits itself in the form of the musical declamation accompanied by the lyre which was so popular among the Greeks. This musical declamation may be regarded as the beginning of an effort on the part of poetry to set up a separate form of expression for itself apart from the musical form: the music then, as now, seems apt to swallow up and drown the words of a song; and from this point on, down to the present time, we will find more and more clearly declaring itself an effort on the part of words, or poetry, to gain some form of utterance which will be indeed in a sense musical but which will be so in a way to bring out, rather than obscure, the meanings of the words.

A little clew seems to appear, at this point, connecting the Greek musical declamation with the modern speech-tune. In our usual talk nowadays, when we ask a question the voice rises at the end of the interrogatory through an interval of about a fourth; that is, for instance, from  to  . On the contrary

when we make an ordinary affirmation, the voice falls at the end of it through about the same interval of a fourth. This rise and fall of the fourth may be regarded as the crudest and most general form of the end of a speech-tune. We all know and instantly recognize these inflections as meaning either interrogation or affirmation. If one meets a paralyzed man who cannot articulate, for instance, and hears him mumble something like this:



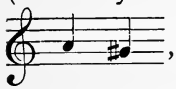
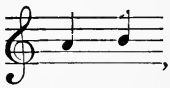
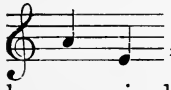
one knows that he is asking some sort of a question: while if the tune of his voice should have a cadence (as the end of a strain is called in music) consisting of a fall of the voice through this same interval one would know that he was making an assertion.

This tendency of the voice to fall through the interval of the fourth seems to show itself in the Greek music. In that memorable collection of instructive questions which Aristotle calls his *Problems*, some words occur which make it probable that the Greek tune usually ended with a stroke on that string of the lyre called *μέση*, followed by a stroke on the string called *ὑπάτη*: and according to the Doric mode of tuning the lyre this would be a fall of a fourth, the string *μέση* corresponding with  and *ὑπάτη* with  . This striking similarity between the cadence, or end, of a musical tune, and the commonest cadence or end of a speech-tune we will find again recurring as we come on down the history of music.[1]

[1] See Helmholtz, as hitherto cited, here and there.

But the main point now is that among the Greeks a struggle for independence begins on the part of words as against pure musical tones, and shows itself in the so-called musical declamation, which was not exactly musical tune nor exactly speech-tune.

Leaving the antique period: if we now consider the mediæval period, we find the progress of music characterized by its first faint approach towards harmony. The Greeks had no harmony at all. Their music was all melody, that is, a succession of single tones: and what they called an accompaniment seems to have been merely striking the same tones on the lyre (or other musical instrument) which were uttered by the voice, perhaps in a different octave. The intervals of the fourth and the fifth were certainly known by Pythagoras, but their modern harmonic relations would seem to have been wholly unsuspected. This absence of harmony continues in the mediæval period, but an approach to it becomes visible in what is called the polyphonic music which distinguishes this period. In polyphonic music several different melodies are so arranged that they may be sung or played at the same time, without discord. There is no attempt yet at chords, as we strike them, in accompanying a paramount melody: but the separate melodies move independently, though not discordantly. An interesting specimen of this early polyphonic music in the mediæval period is presented to us in the *Cuckoo Song* which has been given in another connection. It was mentioned that this is notable as the first English song found accompanied by the musical notes to which it was sung. These musical notes give us one of the tunes which were called by the technical name of Discant in the polyphonic system.

Here the words are still subordinated to the music: they have not yet achieved their independence; but we find the musical declamation or recitative acquiring great prominence during this time, and presenting us with a farther stage of the struggle. The little clew of the fourth, too, recurs in an interesting manner in the intoned church service which takes form during this period. In chanting the Catholic service there are certain short musical phrases which denote marks of punctuation; when the priest makes this interval (but they differ in different services), for example,  , the congregation knows that a comma has occurred in the text, when he makes this  , they understand a semicolon: when he makes this,  , it is the sign of a full stop, and here may be recognized the familiar cadence of the fourth.

In this time too we find words manifesting their struggle for independence in various specialized forms of poems intended to be sung or recited with accompaniment of music or of dancing or of both. The "sonnet" takes its name from the *sounding* of the lute which it was intended to take on as an accompaniment: the "ballad" is from *ballare*, to dance, and is originally a song to be danced to; the "chant" begins to assume a meaning different from *cantus*, and to lean towards a prolonged sort of speech-tune.

Coming now to the distinctively modern period of music: in the 16th century appears both in Italy and England a great passion for the accompanied declama-

tion (*recitativo accompagnato*). In Italy the operatic recitative flourishes; in England Nicholas Lanier recites a whole masque composed by Ben Jonson, to a musical recitative of his own accompanied by an instrument, while the noble company of masquers perform in dumb show the action of the poem. At this time music is striving as hard on its side for separate existence as poetry on its side: until Palestrina and Haydn and Bach and Beethoven finally bring-out the perfect glory of harmony and of instrumentation, on the one hand, while Shakspere and Milton and Keats and Tennyson bring-out the perfect glory of poetic words on the other hand. Now, we find music almost exclusively expressed through the instrumental tune — a term including the song, which belongs to the singing-voice as a reed-instrument — while poetry is expressed through the speaking-voice tune. Now, the musician uses the voice simply as a reed-instrument, and the word simply as a tone-color; while the word-artist, the poet, uses music only in that range of it comprehended between the limits of the speaking-voice. In fine we have on the one hand the Symphony: on the other the Tunes of Verse.

The advantage to each art in thus setting-up for itself and growing alone is seen in the wonderful development of both. The progress of music since it became purely instrumental and harmonic is one of the most striking phenomena in the history of art. The body of music made before Palestrina bears such an insignificant proportion to that made since, that one may say, with substantial truth, music is the product of the last three centuries. And if we find music thus bounding forward to an astonishing development as soon as it has

freed itself from the fetters of poetry, of conventional words, and has obtained a completely instrumental medium of expression; we are forced to believe that poetry must also find new power and freedom in its emancipation from the restraints of music and its acquisition of an independent medium of expression through the speech-tune.

And if we wish to see how natural it is to expect, just at this time, that poetry would thus free itself from music and take to its own mouthpiece, we have only to consider the attitude of a modern English-speaking audience towards the recitative of the ordinary Italian opera. The realism of the modern hearer makes it almost impossible to divest this recitative of a certain absurdity. The audience knows that people in ordinary life never sing at each other, in this way; the audience also is becoming acquainted with the perfectly adequate speech-tune for expressing all these emotions; and so it grows more and more unwilling to forgive this unreality, along with the others of the stage. This feeling of unreality in the sung recitative of the opera is precisely the same feeling which delights in the realism of the "reading," of the speech-tunes; for in the latter we are sure that the words are being spoken in the tunes that belong to them, in the actual tunes of life, in the melodies of everyday speech.

Here we open up a fascinating field for a possible extension of our poetic achievement. We have seen what delicate variations in meaning were effected by uttering the same words to a different tune: once we get a fair command of all these subtle resources of speech-tunes, once we have trained our ears to recognize and appreciate them properly, once we have learned

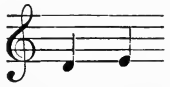
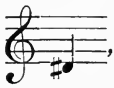
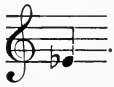
to use them in combination with the larger rhythms which are easily within the compass of our English tongue, what strides may we not take towards that goal, — of the complete expression of all the complex needs or hopes or despairs of modern life —, which ever glitters through all the clouds of commonplace before the eyes of the fervent artist!

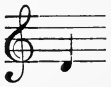
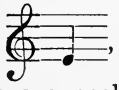
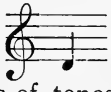
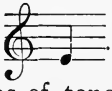
It remains now to investigate the nature of speech-tunes.

In doing so we are met at the outset by the fact that no one has yet succeeded in devising a system of notation which could express even those crude forms of the speech-tune which have from time to time caught the attention of this or that elocutionist or speculator as "intonations" or "inflections." This failure has caused many minds to take on a state of vague scepticism about the matter, or rather of hopelessness. Such a result is however as illogical as it would be to deny the fact of bird-songs because we cannot note them accurately.

The reason for our inability to note the tunes of speech in visible characters however lies in the circumstance that the scale of tones used by the speaking-voice differs entirely from that used in music. This scale of tones is explained in the preliminary chapter, to which the reader may here refer. I have there set forth, in a physical explanation of vibratory phenomena which will be intelligible to many who find the "whole tones" and half-tones" of music insoluble problems, that the tones used in music are a special set of tones, selected from the body of possible tones according to a fixed law which chooses certain tones, rejects others lying near them, chooses the next, and so on, until the scale is completed. This scale is composed of so-called

"whole tones" and "half-tones;" and nothing less than half-tones is employed in the tunes of music — of, at least, European music.

The tunes of speech, however, do employ less intervals than the half-tone; and in so far as they do, they are beyond the capacity of the musical system of notation. That system indicates a change of pitch to the extent of a whole tone thus:  where the first note is on a space below the first line of the staff, and the second is on the first line of a staff. Between these two tones, only one other is possible in music: namely the semitone, which is indicated either by adding a ♯ ("sharp") to the first note, thus  , making it a semitone higher, or by adding a ♭ ("flat") to the second one, making it a semitone lower,[1] thus  .

But, the musical system of notation being thus inadequate to express more than one tone between  and  , it is for that reason wholly inadequate to note a speech-tune; for, in the scale of the speaking-voice, several tones — certainly at least nine — lie between  and  . These thirds of tones, fourths of tones, fifths of tones, and so on up to ninths

[1] As before mentioned it would be a needless perplexity to explain here the differences of temperament, which are not at all necessary to the point in hand.

of tones, used by the speaking-voice constitute the characteristic peculiarity of its tunes and present us with the obstacle which has defeated all attempts to note them by the limited resources of the musical staff. There is no musical character for the third of a tone, the fourth of a tone, and so on, or for any less interval than the half of a tone: and thus at least four-fifths of the tones actually used by the speaking-voice in its tunes are incapable of expression by this system.

Of course nothing would be easier than to devise a system which would be adequate to the scale of the speaking-voice. It would be necessary only to increase very largely the number of lines in the staff, and to note the tones with the understanding that the note on the lowest line of the staff should express the lowest tone of the speaking-voice, the note in the next space a tone one-ninth higher, the note on the next line a tone one-ninth higher, and so on, ascending by the ninth of a tone at each step, to the highest limit of the speaking-voice. This limit would range through a little over two octaves for the ordinary voice.

But the difficulty in the construction of such a scale is that we have not yet ascertained with precision the power of the ear in exactly co-ordinating small intervals such as the third, fourth, &c., of a tone. While the ear, as ascertained by quite recent experiments, can unquestionably detect a difference in pitch between two tones of much less than the ninth of a musical whole tone, yet how minute, exactly, may be the interval between two speaking-voice tones beyond which the ear's discrimination is not reliable, is not yet ascertained. The present writer hopes before long to find this interval, through some experiments now in progress; but in

the mean time, disregarding co-ordinations of speaking-voice tones beyond the ninth of a tone, it is perhaps sufficient to say that many reasons concur to authorize the belief that very much smaller intervals than this enter into the composition of speech-tunes.

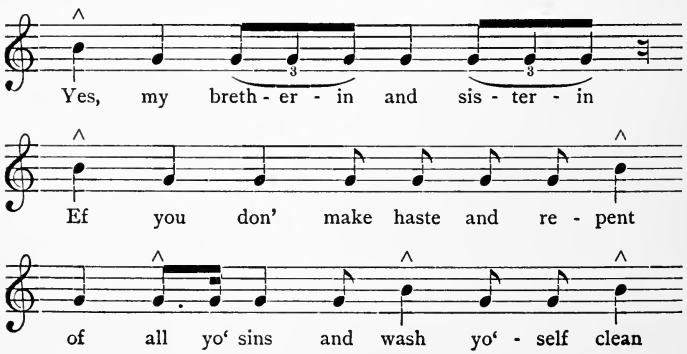
It must be said that the speech-tune is in its infancy and that no man can tell what will be the development of the powers of the ear in this direction. There can be no doubt that if, as has been already recommended to the reader, the habit of consciously listening to the tunes of speech should become generally cultivated, an enormous increase of capacity in the general nicety of discrimination and in the understanding of these flitting melodies would result. Perhaps few persons are properly aware of the endless capacity of the ear for cultivation in these matters. This capacity has been very remarkably illustrated in the history of music during the past two hundred years. There are notable instances that during that time the ear of the whole civilized race of men has undergone such a change by cultivation that chords which even musicians could not easily tolerate have come to be universally recognized as not only tolerable but beautiful.

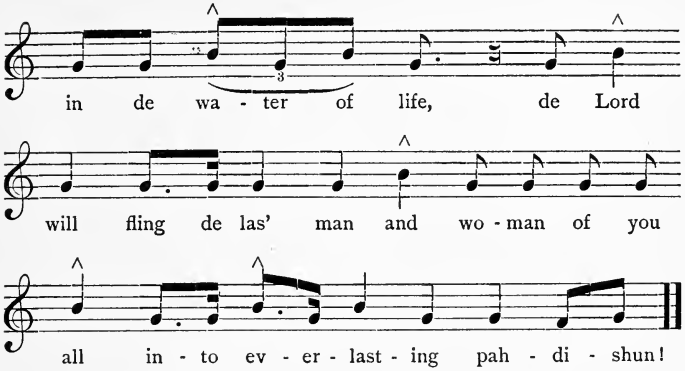
One can positively declare from personal experience that the ear can be brought to such a capacity in co-ordinating these speech-tunes that as much more pleasure is derived from them as a fervent and skilful musician derives from intelligently following a symphony of Beethoven, when compared with one whose uncultivated ear perceives in the mass of music only a chaotic splotch of tones.

In the case of rhythm we found that perhaps the most primitive form of rhythm-producing apparatus

was to be seen in our own country, in the "patting" which the Southern negroes so delight-in for a dance-accompaniment. I can now again point to the negro as exhibiting a most striking example of the transition-period from pure musical poetic recitative to the speech-tune, or more refined recitative. One who has ever heard a typical negro sermon will have observed how the preacher begins, in the ordinary tones of voice, announcing his text and gradually clearing the way to the personal appeal of the sermon : here he rises into a true poetic height, and always falls into what is an approach to musical recitative : "Yes, my bretherin and sisterin," (he will say) "ef you don' make haste and repent of all your sins and wásh yourself cléan in de ríver of life, de Lord will fling de lás' mán of you down into everlásting perdition."

The transition-nature of this, between musical recitative and the speech-tune, appears from the fact that its tones are almost exactly reproducible in musical notation. Every one who has heard it will readily recognize it in the following scheme :





The effect of this upon the more cultivated ear is a curious confirmation of the account given of the function of speech-tunes. The sing-song is not bearable: it is so much less subtle and capable than the speech-tune that our minds take towards it the same attitude as toward the musical recitative.[1]

And now, as affording an instructive contrast between the crude approach to the speech-tune made in the half-chanted sermon of the negro just given and the highest delicacy of the cultivated speech-tune, let the student read aloud the following sonnet of Michael Drayton's which in a still more artful manner illustrates not only the necessity of speech-tunes but their power of infusing subtle, dainty and delicately-shaded differences of meaning into the same words. The word "I" is here sometimes used as a pun upon the word "ay" (meaning *yes*, as in the ayes and noes), sometimes as a liberal grammatic application of the pronoun meaning

[1] So that the long recitatives of Wagner are music of the past rather than of the future. This great genius has indeed revived the mediæval polyphony in modern instrumentation.

me, and sometimes in its own signification. Here is, therefore, material for a complex and delicate interplay between the three meanings which the word has as word and the other meanings given it by the tune in which the voice pronounces it. This interplay is so subtle that even with the poem before the eye, I think one does not get nearly all the cunning turns of thought until after several readings and some reflection. You are however to fancy that the poet is diligently making love to some saucy, red-lipped, slender, bright-eyed beauty of the time, who half in sport, half in fighting off her own love which she does not wish to hide and yet is unwilling to display, continually drives him off and then lures him on, wholly by the peculiar tunes of speech in which she utters the monosyllables *no* and *ay*. At last he grows into a fit of desperation, and cries out to her:

X. (OF THE SONNETS TO IDEA.)

Nothing but No and I, and I and No:
How falls it out so strangely you reply?
I tell you (fair) I'll not be answered so,
With this affirming No, denying I.
I say *I love*, you slightly answer *I:*
I say, *You love*, you peule me out a *No:*
I say, *I die*, you echo me with *I:*
Save me, I cry, you sigh me out a *No.*
Must Woe and I have nought but No and I?
No I, am I, if I no more can have;
Answer no more, with silence make reply
And let me take myself what I do crave:
Let No and I with I and you be so:
Then answer No and I, and I and No.

And finally here — in this matter of the tunes of English verse — the sonnets of Shakspere are supreme

for subtlety and often for beauty. Sometimes the antitheses of thought are so manifold, the turns of expression so doubling and twisting, that we can hardly find any tunes for them: they can scarcely be read aloud! While others such as "When I consider everything that grows" (XV), or "No longer mourn for me when I am dead" (LX), or "Not from the stars do I my judgment pluck" (XIV), or "When in disgrace with fortune and men's eyes" (XXIX), or "When to the sessions of sweet silent thought" (XXX), or "Betwixt mine eye and heart a league is took" (XLVII), or "Tir'd with all these for restful death I cry" (LXVI), or "But be contented: when that fell arrest" (LXXIV), or "Then hate me when thou wilt; if ever, now" (XC), — and many more — create in our voices as we read them such faint-changing, indefinable, strange, and beautiful tunes that we seem to be speaking some language out of a finer and brighter star than our own.

PART III.

THE COLORS OF ENGLISH VERSE.

CHAPTER XI.

OF COLORS IN VERSE, GENERALLY; AND OF RHYME, SPECIALLY.

When the voice utters the sound denoted by the English character A, it makes, not a single tone, but a tone composed of a number of other tones: when it utters the sound denoted by the English character O, it again utters a tone which is not single but composed of a number of other tones; and the difference between the two sounds, by which the ear distinguishes A from O, is due to the fact that certain of the ingredient sounds are prominent in A, while certain others are prominent in O. As, in making the color purple out of a composition of red and violet, we would have different shades of purple according as we should make the red or the violet more prominent in the mixture, so in making up a sound the buccal cavity[1] manages, by co-ordinations of muscles which are learned in childhood, to render now one, now another, ingredient-sound more prominent, and thus to bring out different shades of tone. It is a certain shade of tone which we call A,

[1] Consisting of the mouth, larynx, nose, &c.

another which we call O, another which we call E, another which we call U, and so on: and the ear discriminates one of these shades of tone from another as the eye discriminates one shade of color from another.

It is this analogy between processes belonging to sound and processes belonging to light which has originated the very expressive term "tone-color" [1] in acoustics. And inasmuch as vowels and consonants are phenomena of tone-color, the present system of verse acquires a safe and sure basis of classification by referring all those effects of English verse which depend directly upon vowels and consonants to this fact and assembling all such effects under the term "the colors of English verse."

The reader in beginning the study of these colors should refresh the memory as to their nature and their relations to musical tone-color by re-reading the sections of the introductory chapter in which the physical explanation of tone-color is given.

It is important to observe that the term "colors of verse" is therefore a scientific term, and not based upon those fanciful analogies which have in a vaguer way imported terms drawn from sound into the art of painting and — *vice-versa* — terms drawn from light into the art of music. These terms, though fanciful, have been found of great use. It would be difficult to find a word by which we could as well express what has come to be known as the "tone" of a painting or drawing: while, in the same way, we could scarcely replace the word "color" as it has come to be applied to musical compositions. Perhaps the most unmusical person,

[1] Otherwise "Timbre," "Clang-tint" (Mr. Tyndall, translating the German *Klang-farbe*), "Quality." See chap. I, pp. 28, 29.

after hearing Gade's Eighth Symphony, for instance, would instantly recognize the felicity of the expression upon being told that it was "scarlet in color," from a certain pervading splendor of sound distinguishable through all the beautiful rhythmic, melodic and harmonic movements: while on the other hand a person quite out of the range of painters' slang would understand what was meant upon being told that a certain picture was "purple-gray in tone."

But, recognizing from these brief examples the happy way in which expressions originally referring to phenomena of sound lend themselves to the description of phenomena of light, — and the opposite, — the student is to bear in mind, as was said, that the term "colors of verse" is not drawn from these fanciful analogies, but refers to the actual physical process which has come to be scientifically designated "tone-color," as it reveals itself in those colors which we call A, E, O, B, X, &c. in speech and in verse.

In this connection it is not a little curious to remark that one of the phenomena hereinafter treated under this head — that of rhyme — happened by a mere glance of the mind to be called "color" in verse long before the time when the actual process now known as tone-color was suspected. It is nearly three hundred years ago since King James in his *Reulis* &c. for verse-making said: "First, ze sall keep just cullouris" (*First, ye shall keep just colors*), "quhairof the cautelis are thir" (*whereof the cautions are these*): "that ze ryme nocht twyse in ane syllabe" (*that ye rhyme not twice in one syllable*) &c.

I find Webbe, in 1586, using the same term as to rhyme: in a most contemptuous abuse of rhyme, which he regarded as all unworthy, he declares that "our

speeche . . . might bee adorned with *farre more excellent collours* then *ryming* is."

When the ear co-ordinates a series of verse-sounds with special reference to their tone-colors, the resulting perceptions may be considered under the following four divisions, which embrace most of such co-ordinations as are of artistic importance in English verse, to wit:

(1) Rhyme: which involves both vowels and consonants;

(2) Vowel-distribution: which involves the consideration of vowels alone, with reference to securing agreeable successions of them in the line;

(3) Consonant-distribution: which involves the consideration of consonants alone, with reference to (*a*) securing agreeable junctions of the terminal consonant of each word with the initial consonant of the next word, and with reference to (*b*) arranging pleasant recurrences of similar consonant-colors.

(4) Alliteration: which involves both vowels and consonants;

These divisions suggest a convenient order for discussing the main effects of tone-color as exhibited in the sounds of verse.

RHYME.

(1) Those whose lot it is to receive for helpful criticism the poetic endeavors of doubtful beginners will have observed that very indefinite ideas as to what constitutes rhyme in English verse often prevail among persons of considerable culture. To find "able" rhymed with "possible" — the common syllable "ble" being evidently supposed to sanction the rhyme; or "vine" rhymed with "time," and "vain" with "name,"

and "over" with "sober," and the like; is not uncommon.

In English verse, two words which rhyme must always have: *the initial consonant-sounds different, and all the sounds following these initial ones alike*[1] — whether vowel-sounds, or both vowel and consonant-sounds. Thus, in the simple rhymes "go" and "so," the initial consonant-sounds are "g" and "s" — that is, different: while the sounds succeeding the initial ones are both "o" — that is, alike. The rule would of course include the possible case where one of the words is without any initial consonant-sound: as "oh," with "go" or "so," is a good rhyme.

Let it be carefully observed that the rule uses the term "consonant-*sounds*" and "vowel-*sounds*," rather than "consonants" and "vowels:" for, in English it often happens that not only different sounds are indicated by the same vowel or consonant, but also that different vowels or consonants indicate the same sound.

Thus "though" is a good rhyme with "so," — and follows the rule given; for the initial consonant-sounds "th" and "s" are different, while the vowel-sounds and consonant-sounds following them are alike though the vowels and consonants (meaning vowel-letters and consonant-letters) standing for those sounds are wholly unlike. So "do" and "few" and "true" and "coo" all rhyme, though the vowel-letters which follow the differing initial consonants all differ also; for these different letters express in English utterance like sounds. Similarly: "do" and "go" do not rhyme: for while the initial consonant-sounds differ and the

[1] The rule differs in other languages.

following vowel-letters are alike, the following vowel-sounds are not alike.

The rule given applies as well to rhymes of more than one syllable. Thus in rhymes like "slumber" and "number" — often called "feminine," "female," or "double-ending" rhymes — the initial consonant-sounds differ, and all the following sounds agree: it is therefore a good rhyme. So in rhymes of three syllables — the Italian "*Sdrucciole*" — as "slumbering" and "numbering," "beautiful" and "dutiful," and the like, we always have the *initial consonant-sounds of the two words different, and all the other sounds alike.*

The office of rhyme in marking-off rhythmic groups for the ear has been already explained; and the present discussion may therefore confine itself to (*a*) A Historic Outline of rhyme in English poetry particularly as bearing upon the proposed rhyme-tests for Shakspere, and (*b*) Practical Cautions for its use in verse.

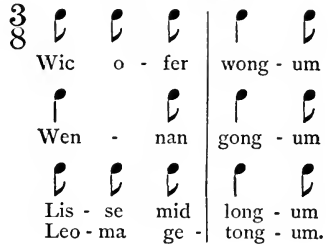
(*a*) The employment of rhyme in English verse as a pleasant effect upon the ear dates from a very early period. It is often said to have been brought from Eastern sources; but we find rhymes in very early Anglo-Saxon poems, and one — called by Conybeare "The Riming Poem," a strange and obscure paraphrase upon some passages in the Book of Job — is written entirely in a remarkably effective succession of mostly double, or feminine, rhymes. For example, in the beautiful Anglo-Saxon poem of *The Phœnix*, the following couplet, which occurs in a fervent description of Paradise, or the Happy Land, presents some striking rhymes:

Ne forstes *fnæst*, ne fyres *blæst*,
Ne hægles *hryre*, ne hrimes *dryre;*

while the rhyming poem, which is given in the note[1] below as being probably the first entire English poem

[1] RHYMING POEM.

TYPIC SCHEME.



Me lifes onlah	He raised me to life
Se this leoht onwrah,	Who displayed this light,
And thæt torhte geteoh	And this bright possession
Tillice onwrah.	Bountifully disclosed.
Glæd was ic gliwum,	Glad was I in glee,
Glenged hiwum,	Adorned with [fair] colors,
Blissa bleoum	With the hues of bliss
Blostma hiwum.	And the tints of blossoms.
Secgas mec segon	Men would say concerning me
Symbel ne alegon	That perpetually I should not desist
Feorh-giefe gefegon.	To rejoice in the gifts [blessings] of life.
Frætwed wægum	Adorned in its paths
Wic ofer wongum,	[Was my] habitation on the earth
Wennan gongum	[So that I might] expect in my journeyings
Lisse mid longum	Favor with long
Leoma getongum;	Dispensations of light (felicity);
Tha wæs wæstmum aweaht	Then was I abounding in fruits
World onspreht,	And flourishing in the world,
Under roderum aweaht	Springing up beneath the heavens,
Ræd mægne ofer theaht.	And excelling in the force of counsel.

in rhyme, shows great skill in the use of this effect, and makes a most sonorous piece of speech-sound when

Giestas gengdon	Guests came
Ger-scype mengdon,	They intermixed in commerce,
Lisse lengdon,	They prolonged my pleasures,
Luftum glengdon.	And adorned me with luxuries.
Scrifen scrad glad	Vestments of joy carefully wrought
Thurh-gescad inbrad	Shed around in breadth
Wæs on lagu-streame lad	Were led over the ocean flood
Thær me leothu ne biglad.	Where my vessel miscarried not.
Hæfde ic hæanne had	I held a high state
Ne wæs me in healle gad	Nor was there in my hall any peer
Thæt thær rof word rad;	Who would utter a haughty word there;
Oft thær rinc gebad	Warrior often begged there
Thæt he in sele sæge	[For the treasures] which he beheld in my court,
Sinc gewæge.	The weighed silver.
Thegnum gethyhte . . .	. . . . .
Thendum wæs ic mægen,	Thence was I powerful
Horsce mec heredon,	Warriors obeyed me,
Hilde generedon,	Delivered me in battle,
Fægre feredon,	Fairly supported me,
Feondon biweredon.	Protected me from enemies.
Swa mec hyht-giefu heold	So faithfully the gifts of hope
Hyge Dryht befeold;	Did the Lord pour into my mind;
Stathol æhtum steald,	He established a firm foundation for my possessions,
Stepe-gongum weald;	And directed my steps in their goings
Swilce eorthe ol	So in the earth
Ahte ic ealdor stol;	I possessed a royal seat;
Galdor wordum gol,	I sang magic strains,
Gomel sibbe neof oll.	And grown old in peace, I had no disgrace.
Ac wæs gefest gear,	But I was formerly firm,
Gellende sner,	Affluent
Wuniende wær,	Abiding safely
Wil-bec be scær.	With an abundant stream [of good] by my portion.

properly read aloud, even to those who do not understand its meaning.

Scealcas wæron scearpe	My servants were sagacious,
Scyl wæs hearpe.	There was skill in their harping.
Hlude hlynede,	It resounded loud,
Hleothor dynede,	The strain re-echoed,
Swegl-rad swinsade	Melody was heard
Swithe, ne minsade.	Powerfully, nor did it cease.
Burg sele beofode,	The hall vibrated,
Beorht hlifade;	Splendor shone;
Ellen eacnade,	My spirit expanded,
Ead eacnade;	My happiness increased;
Freaum frodade,	I was prudent among princes,
Fromum godade,	And successful among the brave,
Mod mægnade,	Powerful in mind,
Mine fægnade.	Rejoiced in spirit.
Freow telgade,	My tree flourished,
Tir welgade,	My sway increased,
. . . .	. . . .
Blæd blissade,	Fruit blessed me,
Gold gearwade,	Gold was at hand,
Gim hwearfade,	Gems poured around me,
Sinc searwade,	Treasures tempted,
Sib nearwade;	Kindred drew near;
From ic wæs in frætwum	I was brave in adornment,
Freolic in in-geatwum,	And graceful in carriage,
Wæs min dream dryhtlic,	My glory was lordly,
Drohtad hyhtlic;	Conversation joyful;
Foldan ic freothode,	I was benevolent to the land
Folcum ic leothode;	I sang lays to the people;
Lif wæs min longe	My life was long
Leodum ingemonge,	Among my nation,
Tirum getonge	My condition in my dominions
Teala gehonge.	Was happily supported.

The *Carmen Aldhelmi* which occurs with the Letters of Boniface shows us — if it be really the song of our

Nu min hrether is hreoh	But now my breast is stormy
Heoh-sithum sceoh,	Shaken by the season of woe,
Nyd bisgum neah;	Need is nigh;
Gewited nihtes infleah	And he is tormented at the approach of night
Se ær in dæge was dyre;	Who before in the day was highly esteemed;
Scrithed nu deop feor,	Deep fire now is wrapt around,
Brond hord geblowen	And the hoard of brands inflamed
Breostum inforgrowen;	Increasing round his breast;
Flyhtum to-flowen	Flowing in flights
Flah is geblowen	The dart is blown forth
Miclum in gemynde	Against the haughty of soul
Modes gecynde;	In the disposition of his mind;
Greteth ongrynde,	He lamenteth in the abyss,
Grorn ofen pynde.	Pained in the furnace of woe.
Bealo-fus byrneth,	Bale-fire burneth,
Bittre wyrneth;	Bitterly warneth;
Wid sith onginneth,	A wide journey beginneth,
Sar ne sinneth,	Affliction ceaseth not;
Sorgum cinnith,	He exclaimeth in sorrows,
Blæd his blinnith,	His joy hath ceased,
Blisse linnath,	His bliss hath declined,
Listum linneth,	He is fallen from his delights;
Lustum ne cinneth.	He exclaimeth not in happiness.
Dreamas swa her gedresath,	Thus glories here are prostrated,
Dryht scyre gehreosath;	And the lordly lot brought low;
Lif her men forleosath,	[So] men here lose their life,
Leahtras oft geceosath.	And often choose crimes;
Treow thrag	A faithful course
Is to-trag,	Is withdrawn,
Seo untrume genag	And that which hath no firmness aboundeth,
Steapum eatole misthah	. . . . .
Ond eal stund genag	. . . . .

Aldhelm — an Anglo-Saxon poet rhyming Latin words together certainly as early as the beginning of the 8th

Swa nu world wendeth	Thus now the world wendeth;
Wyrde sendeth	Fate sendeth [men to their doom]
And hetes henteth	And hate pursueth;
Hælethe scyndeth,	Chieftains oppress,
Wer cynge witeth,	War-kings go forth,
Wæl gar sliteth,	The dart of slaughter pierceth,
Flah mah fliteth,	The violent arrow flieth,
Flan man hwiteth,	The spear smiteth them,
Burg sorg biteth;	Sorrow devoureth the city;
Bald ald thwiteth,	The bold man in age decayeth,
Wræc-fæc writhath,	The season of vengeance torment-
Wrathath smiteth;	eth,
Sin-grynd sidath,	And enmity easily assaileth;
Sæcre [sæaro] fearo glideth,	The abyss of sin increaseth,
	Sudden treachery glideth in,
Grom torn græfeth,	Grim rage grieveth,
Græft hafath,	Woe possesseth,
Searo hwit solath,	Sere soileth white,
Sumur het colath,	Summer's heat cooleth,
Fold fela fealleth,	Many things fall to the ground,
Feond-scire wealleth,	The portion of strife aboundeth,
Eorth mægen ealdath,	Earthly power groweth old,
Ellen colath.	Courage cooleth.
Me thæt wyrd gewæf,	This Fate wove for me,
And gehwyrt forgeaf	And as decree assigned it
Thæt ic grofe græf.	That I should grieve with this grief.
And thæt grimme græf	And the grim grave
Flean flæsce ne mæg;	Flesh may not flee;
Thon flah hred dæg,	Soon as the rapid day hath flown
Nid grapum nimeth	Necessity seizeth in her grasp,
Thon seo neah becymeth;	When she cometh nigh;

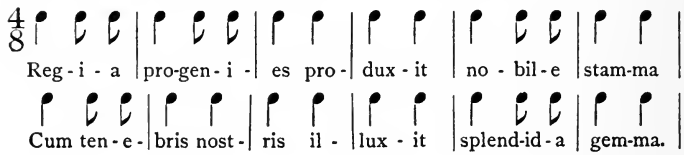
century, in the following fashion, (the rhythm is that of *The Raven*

Once up-on a mid-night drear-y,
Lect - or cast-e cath - o - lic - e
While I pond-ered weak and wear-y)
At - que ob - ses ath - let - ic - e)

Lector caste catholice
Atque obses athletice
Tuis pulsatus precibus
Obnixe flagitantibus
&c.
Usque diram Dornoniam
Per carentum Cornubiam
Florulentis cespitibus
Et fœcundis graminibus.

Seo me ethles onfonn, And mec her heardes onconn.	She that hath taken me from my country And here exerciseth me in hardship.
Thonne lichoma ligeth, Lima wyrm friteth, Ac him wen ne gewigeth, And tha wist gehygeth;	Then the corpse lieth, Worm fretteth the limbs, And the worm departeth not, And there chooseth its repast,
Oththæt beath tha ban an; . . . . . . And æt nyhstan nan Nefne se nede tan Balawan her gehlotene. Ne bith se hlisa adroren	Until there be bone only left; . . . . . . And at the last there is no one But that his fate compels A prey to that destructive host Nor shall he be conversant with happiness
Ær thæt eadig gethenceth He hine the oftor swenceth,	Ere the blessed one [God] thinketh That he hath sufficiently often afflicted him,
Byrgeth him tha bitran synne, Hogath to thære betran wynne.	And burieth for him bitter sin, And exalteth to the better joy.

Again, the following couplet out of a poem preserved in William of Malmesbury, probably of the time of Athelstan, shows Latin hexameters rhymed not only at the end but in the body of the line — an effect which this specimen will show might be capable of great splendor with the majestic Latin vocables:



Gemon mortha lisse,	Remember death's favor,
Her sinden miltsa blisse	Here are merciful blessings,
Hyhtlice in heofona rice.	Full of hope in heaven's kingdom.
Uton nu halgum gelice	Ah, may we be like the saints
Scyldum byscyrede,	Washed from our sins,
Scyndum generede,	Liberated from condemnation,
Wommum biwerede,	Protected from terror,
. . . . .	. . . . .
Thær mon cyn mot	Where mankind shall
For meotude rot,	Before their Creator splendid,
Sothne God geseon	Behold the true God
And aa in sibbe gefean.	And joy in peace evermore.

Text from Conybeare. I have, however, changed his translation in some points where he seems manifestly wrong; and in the line "Bealo-fus byrneth" I have ventured to conjecture Bealo-*fyr* (bale-fire) for the text. In several places the poem is so obscure that interpretation is guess-work, and here Conybeare's guesses are left untouched. Of course textual, or any further, criticism would not be in place for the present purpose, and it seems proper only to cite the inquirer to the original poem in the *Codex Exoniensis*, or *Exeter Book*, and to Conybeare's *Illustrations of Anglo-Saxon Poetry*, London, 1826.

In the Ormulum, of the early 13th century, the rhymes, though not continuous, are too frequent to be unintentional; and from this time on a vast amount of rhymed English popular poetry (of which the student will find many interesting specimens in Warton's *History of English Poetry*, in Halliwell and Wright's *Reliquiæ Antiquæ*, in the publications of the Shakspere Societies, The Roxburghe Club, The Chaucer Society, The Early English Text Society) appears to have been written, besides the greater works known to all.

Thus we find rhyme appearing continuously in our poetry from the beginning of it to the present day. In fact, it had appeared so continuously that about the last quarter of the 16th century the word "rhyme" had come to be pretty nearly synonymous with vernacular poetry in England as opposed to the more dignified Greek and Latin verse, and a strong party was formed in opposition to all rhyming verse. The notion got abroad — and how long it prevailed has been shown in the Preface to this book — that rhythm was a property peculiar to the classic verse and did not exist in English verse; whence the former was distinctly spoken of as rhythm and the latter as rhyme. Sir Philip Sidney lays down this distinction quite explicitly in the *Apologie for Poetrie:* "Now of versifying there are two sorts, the one Auncient, the other Moderne; the Auncient marked the quantitie of each silable and according to that framed his verse; the Moderne, observing only number (with some regarde of the accent) the chiefe life of it, *standeth in that lyke sounding of the words which we call ryme.*" Hereupon Sir Philip, Fulk Greville, Spenser, Gabriel Harvey and others formed their club or society called the Areopagus, which was

to bring back the English verse from the error of rhyme into the orthodoxy of classic rhythm; for which purpose the Areopagus set to work at laying down a rigid law for the quantity of every syllable in English. Of course it was not long before Spenser, who had an ear that knew wherein music consisted, gradually drew out from this folly.

But others grew all the more outspoken against rhyme. Puttenham has frequent side-flings at it: as that "about the time of Charlemaines raigne . . . many simple clerks, . . . following either the barbarous rudeness of the time or els their own idle inventions, . . . thought themselves no small fooles when they could make their verses goe all in ryme;" [1] and in another place he speaks of the word rhyme as "an abusion" of the word rhythmus from which he considers it derived in English.

Webbe, again, becomes quite furious against rhyme: ". . . Ryme or like ending of verses: which though it is of least importance, yet hath won such credite among us, that of all other it is most regarded of the greatest part of Readers. And surely as I am perswaded, the regarde of wryters to this hath beene the greatest decay of that good order of versifying which might ere this have beene established in our speeche:" and in another place he abuses "the uncountable rabble of ryming Ballet" (ballad) "makers and compilers of senseless sonets" as a "rout of ragged Rymers," declaring that "every one that can frame a Booke in Ryme, though for want of matter it be but in commendations of Copper noses or Bottle Ale, wyll catch at the Garlande due to poets."

[1] P. 28, *Arte of English Poesie*, Arber Reprint.

Roger Ascham in *The Scholemaster* was equally severe.

To the same effect, though in somewhat more genial mood, I find Ben Jonson making rhymes against rhyming.

These expressions, particularly those of Webbe, will prepare the reader to see a great disdain cropping out between the lines of that famous fling at Shakspere in poor Robert Greene's *Groatsworth of Wit*, in which Greene accuses the rising poet of thinking himself "able to bumbast out a blank verse" with the rest of them: as if young master Shakspere should take his place with Webbe's rout of ragged Rymers and not presume so high as rhythmic verse.

I have brought the sketch of English rhyme to the particular point now arrived at, as contributing to enlarge the reader's view of an important test which has been proposed, in addition to the metrical tests described in Part I., for ascertaining the chronology of Shakspere's plays. This test is based upon the idea that Shakspere grew more and more out of liking with rhyme as he became older, and that this dislike shows itself in the regularly decreasing frequency of rhymes as we go from his early plays to his late ones. The circumstance that a general decrease of rhymes does occur had been noticed as early as 1778 by Malone. "In the whole number of pieces" — he means by "pieces" Shakspere's plays — "which were written antecedent to the year 1600 . . . more rhyming couplets are found, than in all the plays composed subsequently to that year. . . . As, therefore most of his early productions are characterized by the multitude of similar terminations" (i.e., rhymes) "which they ex-

hibit, whenever of two early pieces it is doubtful which preceded the other, I am disposed to believe, (other proofs being wanting,) that play in which the greater number of rhymes is found, to have been first composed."[1] Nearly a hundred years afterwards the Rev. F. G. Fleay carried out the idea thus suggested by Malone and constructed a table showing the number of rhymes in each play. While it can scarcely be said that the percentages founded on these tables justified the hopes which were originally built upon the rhyme test, no doubt can be felt that it furnished a valuable adjunct to the other tests and added one more means of checking and verifying conclusions. The student will find Mr. Fleay's paper on the rhyme-test as applied to Shakspere, together with an instructive debate upon it by eminent Shakspere scholars, set forth in *The Transactions of the New Shakspere Society* for 1874.

PRACTICAL CAUTIONS FOR THE USE OF RHYME IN ENGLISH VERSE.

(*b*) Whether, with Shakspere and Ben Jonson and the 16th century critics, the world will outgrow the use of rhyme, would be too much to discuss here. Meantime, several cautions suggest themselves which will be of use to the learner.

First and foremost: look upon the rhyme as merely the good garment of reason, and beware leaving the coat with no body in it. On this point I cannot do better than quote gentle old George Gascoigne. "I would exhorte you also to beware of rime without reason: my meaning is hereby that your rime leade you not from your firste Invention, for many wryters when

[1] Note, in Bell's *Shakspere*, vol. II., p. 315.

they have laid the platform of their invention, are yet drawen sometimes (by ryme) to forget it or at least to alter it, as when they cannot readily finde out a worde whiche maye rime to the first . . . they do then eyther botche it up with a worde that will ryme (howe small reason soever it carie with it) or els they alter their first worde and so percase decline or trouble their former Invention: But do you alwayes hold your first determined Invention, and do *rather searche the bottome of your braynes for apte words, than chaunge good reason for rumbling rime.*"[1] The words which I have italicized at the conclusion contain the root of the whole matter; and the resources of our tongue are so great that we are entitled to hold every poet down to the strictest measure of the law which forbids the least intrusion of the rhyme as rhyme — that is, as any thing less than the best word in the language for the idea in hand.

Secondly: having thus secured reason in rhyme, one cannot do better than quote, for the next caution, a remark of Puttenham's in beginning his 8th chapter. It may be well to premise that the word "maker" used in this citation was the common term in his time, particularly at the north, for a poet: it means, indeed, the same, "maker" being merely the Englishing of "poet" which is from ποιέω, to make. "Now" says Puttenham "there cannot be in a maker a fowler fault, then" . . . (than) . . . "by untrue orthographie to wrench his words to helpe his rime, for it is a signe that such a maker is not copious in his owne language, or (as they are wont to say) not halfe his crafts maister. . . . *For*

[1] *Certayne Notes* &c.: pp. 35–6 of *The Steele Glas*, Arber Reprint.

a licentious maker is in truth but a bungler and not a poet."

In short, in this caution as in the last, I can again say that the resources of our English tongue are such that we are entitled to hold the poet always down to the rigid mark of perfection. If the rhyme is not perfect, if it demands any the least allowance, it is not tolerable: throw it away.

Puttenham's indignation over an example he gives of a poet who in extremity for a rhyme had to fly to another language is most comical. . . . "Having no word at hand to rime to this word (joy) he made his other verse end in (Roy) saying very impudently thus,

> *O mightie Lord of love, dame Venus' onely joy,*
> *Who art the highest God of any heavenly Roy,*

which word was never yet received in our language for an English word."

It is difficult to fancy what might have been Puttenham's feelings if he had seen a still more "impudent" foray upon the French language made in later times by Churchill, with witty design —

> Next came the treasurer of either house,
> One with full purse, t'other with not a *sous*,

or Mr. Thackeray's sonnet of Jeames on the deer killed by Prince Albert —

> Some forty ed of sleak and hantlered deer
> In Cobug (where such hanimals abound)
> Was shot, as by the newspaper I 'ear,
> By Halbert, usband of the British crownd.

According to the rule of this caution many rhymes considered "allowable" fifty years ago must now be let alone, as "join'd" and "mind," "brow" and "glow,"

"good" and "flood," and the like; even later than that "abroad" has been rhymed with "Lord." The student may rest with confidence in the belief that no rhyme but a perfect rhyme is ever worth a poet's while.

Thirdly: as to the position of rhymes in English verse there is no law but the poet's own ear. They may be at the end, the middle and end, or the beginning of a line, or irregularly disposed, at the maker's pleasure. It is true Puttenham thought that "rime or concorde is not commendably used both in the end and middle of a verse;" but he had not seen Tennyson's song,

> The splendor *falls* on castle-*walls*
> And snowy summits old in story,
> The long light *shakes* across the *lakes*
> And the wild cataract leaps in glory,

which is perfect music.

But it may be of profit to notice that the opposite fault — of placing the rhymes too far apart — is often committed in English verse. For, the reason of rhyme is that the ear takes "pleasure to hear the like tune reported, and to feele his returne;" and if the rhymes be too far apart a greater trouble happens than that which Puttenham quaintly condemns as incident to the over-long line in verse: it "kepeth the eare too long from his delight, which is to heare the cadence or the tuneable accent in the ende of the verse:" and hence the "delight," whatever it may be, is lost.

Fourthly: rhymes of more than two syllables are to be handled with care, as easily running to the finical, and passing into the province of the comic verse-maker. For instance, the couplet quoted by Coleridge in the *Biographia Literaria:* a Welshman having failed to

send a present of a hare to a friend as promised, the friend wrote him,

> Say, O thou son of great Cadwallader,
> Hast sent the hare, or hast thou swallowed her?

Or, again, the rhyme made by the late Thomas Buchanan Read on Popocatapetl, (communicated to me by his friend Mr. John R. Tait):

> Po-po-cat-a-petl!
> Oh, oh, what a kettle
> To boil on, &c.

Perhaps the comical tendency of rhymes of more than two syllables in English is due to the fact that the more dignified function of rhyme is as a rhythm-marker (as hereinbefore detailed) and that whenever rhyme appears as mere jingle, the result is loss of dignity; wherefore, since one-syllable rhymes mark-off rhythm as well as any larger-syllabled ones, the excess is liable to seem childish, if not professedly comic.

Puttenham, for a different reason, condemns many-syllabled rhymes. ". . . Wordes of exceeding great length, which have been fetched from the Latine inkhorne or borrowed of strangers, the use of them in ryme is nothing pleasant."

Fourthly: avoid neighboring rhymes which are very nearly alike in tone-color. For example, if two lines rhyme with "name" and "fame," do not have the two next lines rhyming in "vain" and "stain" or similar near shades of vowel-color. The result is like two contiguous shades of pink in a dress: one of the rhymes will seem faded. Daniel, in one of his most beautiful sonnets to Delia, has permitted a fault of this sort to escape him: the first four lines end respectively in "haires" (hairs)

"neere" (near) "cleares" (clears) and "deere" (dear), which are so near in color that the reader is apt to take them for bad rhymes until he sees that "haires" and "cleares" are intended to rhyme together, and "neere" and "deere." The sonnet has a pathetic tone in it: the "picture" mentioned is the picture he has drawn of her in the other sonnets: and the whole may be collated interestingly with those of Shakspere's in which he promises a similar immortality to his friend through his verse.

> When winter snowes upon thy sable haires,
> And frost of age hath nipt thy beauties neere,
> When darke shall seeme the day that never cleares,
> And all lies withered that was held so deere,
> Then take this picture which I here present thee,
> Limned with a Pensill . . . not all unworthy:
> Here see the gifts that God and Nature lent thee,
> Here read thyselfe and what I suffered for thee.
> This may remaine thy lasting monument,
> Which happily posterity may cherrish:
> These colours with thy fading are not spent,
> These may remain when thou and I shall perish.
> If they remaine, then thou shalt live thereby:
> They will remaine and so thou canst not die.

Fifthly: rhymes involving sweet, sonorous, and dignified vowel-colors, such as "ore" and "restore," "name" and "blame," "harm" and "alarm," and the like, are in general to be favored beyond those of more finical color, as "pity" and "witty," "seem" and "gleam," "hid" and "kid," and so on.

CHAPTER XII.

DISTRIBUTION OF VOWEL-COLORS IN THE LINE-GROUP.

FEW points in the physical well-being of a formal poem require more artistic care than the insidious recurrence of the same vowel-color in consecutive or neighboring words, to the extent of wearying the ear or its imagination.

Consider, for example, the following lines, which have been made as atrocious as possible in order to set the fault forth clearly.

> 'Tis May-day gay: wide-smiling skies shine bright,
> Through whose true blue cuckoos do woo anew
> The tender spring &c.

In the first four words of the first line, the vowel-color *ay* recurs three times consecutively: in the five next words of the same line the vowel-color *ī* occurs five times nearly in succession, the only break being the vowel-color *ĭ* in "ing."

In the second line, the vowel-color *ū* (long *u*, or *oo*) occurs eight times, relieved only by the shorter sound of *u* in "cuck-" and the color of *a* in "anew."

This exaggerated iterance of the same vowel-color is of course intolerable, and teaches the necessity of care in this matter. Perhaps no person who has never been a practical craftsman in verse would be aware how carefully the technic of the word-artist unconsciously leads him away, after that technic has become — as it should be — instinctive, from these recurrences.

It must not be imagined for a moment that this is a small defect, condemned only by over-refinement. The good craftsman always avoids it: the bad craftsman may be known by its presence.

Here, indeed, no rules beyond the judgment of the artist's ear need be given. Once the student's attention is called to the matter, it will be easy to observe how the works of all the conscientious makers are free from this fault, and how closely their continued acceptance among men from age to age is connected with that scrupulous love for the beautiful which lies at the bottom of their substance as well as their form, and which can abide no flaw.

To assign limits to the number of recurrences of one vowel-color which may be permitted in a line, would be to make rules subject to many exceptions. For example, Samuel Daniel, in a certain ravishing sonnet to his Delia, has come dangerously near such a limit in the first line,

> Restore thy tresses to the golden ore,

where long *o* occurs four times: yet the vowel-color *o* is itself so fine, as a mere sensuous impression, that one would not dare to suggest any less frequent appearance of it in the given line. Perhaps therefore the most profitable lesson for the student will be to cite some poem for analysis in which this fault is finely avoided, under peculiarly troublesome circumstances. To this end, scrutinize each vowel-color in the following sonnet of Bartholomew Griffin's (16th century) to his Fidessa. Here, since every line ends in the same color — that of *ear* in *heart* — it was particularly difficult to avoid disagreeable recurrences, the choice being thus more than

usually limited: yet — though of course Griffin was not conscious of any special exertion to this end — the succession of colors is everywhere grateful to the ear, and there are few poems which are pleasanter to read aloud.

The lover is speaking to Cupid, much as Prospero would speak to his airy servant Ariel; and is apparently giving Cupid instructions how to proceed in laying siege to his mistress's heart in his behalf. As his whole thought is upon this "heart" of his mistress, he makes that word the burden of the poem: it is thus really a sort of sonnet with a refrain.

Says Griffin: and one may imagine that Cupid, with gay wings all in a flutter, is hovering just at his ear, like a humming-bird poised over a flower-bell, ready to dart off on his errand as soon as he may:

XXIII.

Fly to her heart, hover about her heart,
With dainty kisses mollifie her heart,
Pierce with thine arrows her obdurate heart,
With sweet allurements ever move her heart;
At midday and at midnight touch her heart,
Be lurking closely, nestle about her heart;
With power (thou art a god) command her heart,
Kindle thy coales of love about her heart,
Yea even into thyself transforme her heart.
Ah, she must love, be sure thou have her heart,
And I must dye, if thou have not her heart.
Thy bed (if thou rest well) must be her heart:
He hath the best part sure that hath the heart;
What have I not, if I have but her heart?

CHAPTER XIII.

OF CONSONANT-DISTRIBUTION : JUNCTION, AND PHONETIC SYZYGY.

EVERY one must have more or less experience of the great difference in the ease with which different consonants can be uttered after a given consonant. For example: if the student will utter as rapidly as possible the sounds *lal lal lal lal lal lal* &c., the terminal *l* of each *lal* is found to make an easy junction with the initial *l* of the next, and consequently a very rapid utterance of the syllables is easy.

But other successions of consonants will be found more and more troublesome. For example a terminal *g* before an initial *b* involves such awkward re-arrangements of the vocal organs that, upon trying to utter the sounds *bag bag bag bag* &c., the student will find it impossible to make the succession any thing like so rapid as in the case of *lal lal lal* &c.

If again the three words *shouldst stand still* be tried, it will be found impossible to utter them rapidly at all; the distinct enunciation of the initial consonant-sounds *st* in "stand" *after* the terminal consonant-sound *st* in "shouldst" involves such an entire new adjustment of the vocal organs as to necessitate a perceptible interval of time between one *st* and the other.

Now this awkwardness is very clearly felt in a series of words, even if they are not uttered aloud, but merely read by the eye in silence; and the selection of such

words as melt flowingly into each other is one of the most important of those cares that brood unseen in the mind over the birth of a poem.

Here, again, no directions are necessary, beyond calling attention to the matter. The good artist is all conscience: he has but to know a sin against beauty, to take all precautions against permitting it. The more the student searches the art of words, the more it will be found that all the great artists have been scrupulous in this particular. Not to be so is to make a poem which saws the ear with sharp notches of sound.

PHONETIC SYZYGY.

It will be remembered that in alliteration the important limit is necessary that the alliterative letter must begin always an accented syllable.

There is however an important co-ordination of consonant-colors made by the ear in every series of verse-sounds, which takes pleasurable note of the recurrence of all same, or like, consonant-colors, whether at the beginning, middle or end, of accented or unaccented syllables.

The extent of this co-ordination cannot be properly set forth until the relations of several consonants are recalled. If the consonants D, T, and Th, be carefully uttered, the student will observe that the three involve nearly the same adjustment of the vocal organs; so do P, B, and V; so do G, C (hard), and K. This similarity involves a similarity of tone-color, and we may say therefore that D, T, and Th, are similar consonant-colors; P, B, and V, are similar colors; and G, C, and K.

Now if a given line of verse show such a succession

of colors — that is a succession of the same, or similar, colors — all the colors may be taken note of by the ear as a general prevalence of a given color, without reference to whether they occur at the beginning (alliterative letter), at the end (junction consonant) or in the body, of words. Such a succession of consonant-colors has been called Phonetic Syzygy (syzygy, from *sunzugia*, yoking together) by Professor Sylvester, in his *Laws of Verse*, and the term seems so happy as to be a genuine contribution to the nomenclature of the science of English verse.

To take a simple illustration of phonetic syzygy: in the phrase

The daily torment of untruth

(from one of Daniel's sonnets) the ear may not only co-ordinate the alliterative *t*'s which begin the accented syllables "tor-" and "-truth," but may take further account of the *d* in "daily,"— for *d* belongs to the class of T-sounds, as just explained — of the *last t* in "torment," and of the *th* in "untruth." Here are five T-sounds occurring closely together; and this is a syzygy of T-sounds.

Similarly let the student pick out the *m*-colors, and the *d* and *t* colors, in the opening of Shakspere's sonnet

Let me not to the marriage of true minds
Admit impediments;

these constituting respectively syzygies of M-sounds and of T-sounds.

The term "syzygy," it should be noted, was used in the classic prosody for a wholly different sort of co-ordinations, namely, a rhythmic kind, which consisted

of the possible irregular groups of quantities larger than those included in their rhythmic system of verse. For example feet of the form ⏑⏑⏑– – –, or of the form – ⏑ – – ⏑ –, or many other such possible combinations not specified by prosody, were included under the general term syzygies, or yokings-together of quantities.

As in the other cases, it is not deemed proper to give specific directions for phonetic syzygy in verse. The habit of noting such sequences will presently breed in the mind that unconscious care of them which will guide the thought, in its working, towards the proper combinations.

It is impossible not to cite in this connection the two perfect lines of Tennyson whose physical beauty depends on their suave syzygy of M-colors, aided by a delicious distribution of vowel-colors :

> The moan of doves in immemorial elms
> And murmuring of innumerable bees.

CHAPTER XIV.

OF ALLITERATION.

ALLITERATION occurs where the initial vowel-sounds or consonant-sounds of two or more consecutive, or near, accented syllables are the same. In the rhyme these initial sounds are necessarily different: and to this extent alliteration is the counterpart of rhyme.

For example, in

Full *f*athom *f*ive thy *f*ather lies,

the italicized *f*'s are alliterative, for they begin accented sounds: while the first *F*, in "Full," is not strictly alliterative since it comes on an unaccented syllable.

Observe that it is the sound, and not the letter, which is alliterative; and hence, as in the case of rhyme, we may have alliteration when the letters are different, as

The sea that doth exceed his banks,

where the "*s*" in "sea" and the "*c*" in "exceed" alliterate, being the same color, though different letters; and so we may *not* have alliteration where the letters *are* the same, as in

The harp not honor'd with a song,

where the *h* in "harp" does not alliterate with the *h* in "honor'd," the one being pronounced and the other not.

I have already detailed the rhythmic function of alliteration and have called the student's attention to

the wholly different part played, as to this function, by alliteration in Anglo-Saxon poetry from that in more modern English verse. We found that while alliteration was used among the Anglo-Saxon poets to establish and fortify the main rhythm of the verse, its effect in modern verse is to vary the main rhythm by irregular and unlooked-for groups which break the monotony of the set rhythmic movement.

The law of alliteration was strikingly specialized in Anglo-Saxon verse, as already detailed. Many lines[1] were found to present one of the two following types: either the first three accented verse-sounds begin with the same consonant-color, or with some vowel-color; or the second and third accented sounds begin with the same consonant-color, or with some vowel-color. Thus a passage from *The Phœnix*, already partly quoted, has every line of the first type (3 alliterative letters) except the third, which presents the second type (2 alliterative letters). To show these alliterative letters clearly to the eye, they are printed in Italic capitals.

Ne *F*orstes *F*næst, ne *F*yres blæst,
ne *H*ægles *H*ryre, ne *H*rimes dryre,
ne *S*unnan hætu, ne *S*incald,
ne *W*arm *W*eder, ne *W*inter scur,
*W*ihte ge*W*irdan, ac se *W*ong seomath
*EA*dig and *O*nsund; is thæt *Æ*thele lond
*B*lostmum ge*B*lowen.

Inasmuch as this alliterative letter is, except in very rare cases, the initial letter of an important word, — and moreover of the important sound of an important word — it is easy to see that such alliteration must have

[1] I speak of the double section as a "line:" it corresponds precisely with the line-group as herein detailed.

made the beat of the rhythmic movement very strong and commanding to the ear; for the first verse-sound in every alliterated bar is thus signalized to the ear by a pronunciation-accent, a logical accent, a rhythmic accent, and a tone-color.

The fondness for alliteration thus displayed in our early poetry remains palpable to this day in a thousand alliterative proverbs, saws, and sayings which have come down from old times, such as "*M*any *M*en, *M*any *M*inds," "*T*ime and *T*ide wait for no man,"

> "When *B*ale is highest
> *B*oon is nighest"

which is equivalent to "The *D*arkest hour's before the *D*awn;" and many such which every reader will recall.

But, as was said, the rhythmic office of alliteration in modern English verse is to break the monotony of regular groups by interjecting irregular groups. In the following lines, for example, which are the last six of a charming sonnet by Thomas Watson, (a 16th century sonnet-maker whose *Hekatompatheia*, or *Hundred Passions*, contains some good sonnet-work), the letters which I have printed in capitals to attract the eye really attract the ear in the same way. Observe that two alliterative sounds are found, often, one near the end of one line, the other near the beginning of the next line: thus the line-group, which is apt to grow monotonous, is relieved by other groups which are bound together and forced upon the ear by the alliterative letters.

In the first lines the sonnetteer has been expressing his rapture on hearing his mistress sing.

And who so mad that *W*ould not *W*ith his *W*ill
*L*eese *L*ibertie and *L*ife to heare her sing
Whose voice exceeds those harmonies that *F*ill
Elisian *F*ieldes where growes eternall Spring?
If mightie Jove should *H*eare what I have *H*ard,
She (sure) were *H*is, and all my *M*arket *M*arde!

Alliteration, like rhyme, had come to excite a party against it in the 16th century, though there was an opposite party who ran it fearfully beyond its province. Even Chaucer, with his "Rim, ram, ruf," had made fun of the dismal long alliterative poems written in the two centuries preceding him, whose dull iterations were indeed enough to drive the ear mad. King James and the Scottish poets of the 15th century held it in high regard: the king even says, in his *Reulis* &c., "Let all your verse be Literall" — meaning by "literall" alliterative. Gascoigne, on the other hand, is more guarded: "many writers" he says, indulge "in repeticion of sundrie wordes all beginning with one letter, the whiche, (beyng modestly used) lendeth good grace to a verse: but they do so hunt a letter to death, that they make it *Crambe*, and *crambe bis positum mors est:* therefore, *Ne quid nimis.*" And in another connection he declares that "it is not inough to roll inpleasant woordes, nor yet to thunder in *Rym, Ram, Ruff*, by letter. . . ."

I find Robert Greene, too, burlesquing Stanihurst's alliteration, later than Gascoigne's utterances above:

Then did he make heaven's vault to rebound
With rounce robble bobble
Of ruffe raffe roaring
With thwick thwack thurlerie bouncing.

And, still later, we all know Shakspere's jokes on the alliterators, in "Raging rocks with shivering shocks,"

and "The preyful princess pierced &c." of *Love's Labor's Lost.*

It is one of those curiosities of opinion which make us pinch ourselves and ask if we are all in a dream, that Sharon Turner, a laborious historian of the Anglo-Saxons, only partly believed in the alliteration of their verse, and that Tyrwhitt flatly denied the presence of any alliteration in it.

Says Turner: "I am willing to concur with Mr. J. Conybeare that alliteration was used in Saxon poetry. . . . But I think it was as an occasional beauty, not as in Pierce Ploughman the fundamental principle" (Hist. of England, Vol. III., Ang. Sax. Period, pp. 357–8, note 4).

Tyrwhitt, however, is more sweeping: as if one should stand forth and offer to maintain against all comers, Paynim or Christian, that there was never such a building as the Tower of London. "That the Saxons had a species of writing which differed from their common prose, and was considered by themselves as poetry is very certain; but it seems equally certain, that their compositions of that kind were neither divided into verses of a determinate number of syllables, nor embellished with what we call rhyme." To which he adds in a note: "We do not see any marks of studied alliteration in the old Saxon poetry."

These citations are given as instructive examples to the student of the quaint absurdities into which criticism may be led when working on the vague estimates prevalent until quite recent times, and as testimonials to the value of the exacter methods which are indicated by the metrical tests heretofore described. While, as often before remarked, these metrical tests are not to

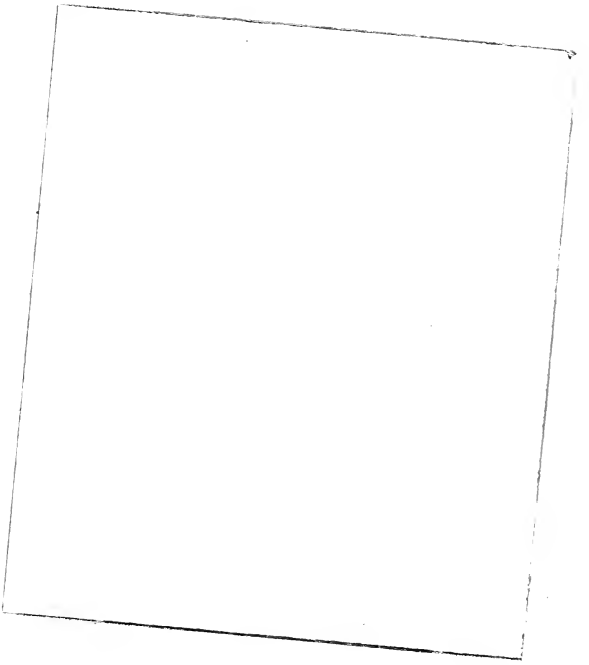
be made the excuse for swinging into the opposite error of over-minuteness, they represent, when properly estimated, a tendency to precise, well-founded and truthful judgments which must be regarded as bound to initiate a literary scholarship of more character than the world has yet seen.

The brief account given of alliteration has been devised to replace for the student any formal rules or cautions for its use. None could be given, indeed, which would be more definite than the inference which the student must necessarily draw from the preceding outline, namely, that all alliteration for the sake of alliteration is trifling, and that in modern English verse it is to be used with such delicate art that the ear will unconsciously feel its indefinite presence, varying the verse as brief irregular bird-calls, heard in the wood here and there, seem to add a delight to the mass of green. There was never a more consummate artist in the use of this delicate effect than Shakspere. I do not recollect one instance in his works where an alliteration occurs that makes any claim on its own account. Such alliteration is felt, through the infinite decorum and gentility which broods at the bottom of art, to be always tawdry, vulgar, and intrusive. Scarcely any word so well expresses the feeling produced by it as that which is often applied in America to certain styles of dress — "loud." And perhaps no more definite caution can be given the student than that all alliteration which attracts any attention as alliteration is loud.

CHAPTER XV.

OF THE EDUCATED LOVE OF BEAUTY, AS THE ARTIST'S ONLY LAW.

And this sketch of the colors of English verse may now be closed with the statement, already partly anticipated in several other connections, that the matters herein treated are only in the nature of hints leading to the widest possible views of poetic form, and by no means laws. For the artist in verse there is no law: the perception and love of beauty constitute the whole outfit; and what is herein set forth is to be taken merely as enlarging that perception and exalting that love. In all cases, the appeal is to the ear; but the ear should, for that purpose, be educated up to the highest possible plane of culture. With this sort of ear understood, one may say that King James has summed up the whole matter in his homely Scotch words: "Zour eare maun be the onely iudge, as of all the other parts of *Flowing*," (that is, of *rythmic movement*) "the verie twichestane quhairof is musique."



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